



**STRATEGY
RESEARCH
PROJECT**

The views expressed in this paper are those of the author and do not necessarily reflect the views of the Department of Defense or any of its agencies. This document may not be released for open publication until it has been cleared by the appropriate military service or government agency.

**THE GROWING IMPERATIVE TO ADOPT "FLEXIBILITY" AS
AN AMERICAN PRINCIPLE OF WAR**

BY

**LIEUTENANT COLONEL ROBERT S. FROST
United States Air Force**

**DISTRIBUTION STATEMENT A:
Approved for public release.
Distribution is unlimited.**

USAWC CLASS OF 1999

19990527 020



U.S. ARMY WAR COLLEGE, CARLISLE BARRACKS, PA 17013-5050

USAWC STRATEGY RESEARCH PROJECT

**THE GROWING IMPERATIVE TO ADOPT "FLEXIBILITY"
AS AN AMERICAN PRINCIPLE OF WAR**

by

Lieutenant Colonel Robert S. Frost
United States Air Force

Douglas V. Johnson II
Project Advisor

The views expressed in this academic research paper are those of the author and do not necessarily reflect the official policy or position of the U.S. Government, the Department of Defense, or any of its agencies.

U.S. Army War College
CARLISLE BARRACKS, PENNSYLVANIA 17013

DISTRIBUTION STATEMENT A:
Approved for public release.
Distribution is unlimited.

ABSTRACT

AUTHOR: Robert S. Frost, Lt Col, USAF
TITLE: The Growing Imperative to Adopt "Flexibility" as an American Principle of War
FORMAT: Strategy Research Project
DATE: 7 April 1999 PAGES: 75 CLASSIFICATION: Unclassified

The nine, American-adopted "principles of war" have been codified in US military doctrine for most of the 20th century. They are the principles of objective, offensive, mass, economy of force, maneuver, unity of command, security, surprise, and simplicity. Given this institutionalized practice whereby warfighting strategy is distilled into to a list of basic principles, the author asserts the "principle of flexibility" has been missing from that framework. Further, he argues the impetus to include flexibility as a principle will only grow. The majority of the paper is devoted to justifying the power of flexibility as both a principle of war and as a synthesizer of the other principles. Most importantly, the author argues, adopting flexibility as a principle of war establishes the vital frame of reference American military leaders and units need to confront the profoundly uncertain and challenging environment of the 21st Century across the spectrum of military activities.

TABLE OF CONTENTS

ABSTRACT	iii
LIST OF ILLUSTRATIONS	vii
LIST OF TABLES	ix
THE GROWING IMPERATIVE TO ADOPT "FLEXIBILITY" AS AN AMERICAN PRINCIPLE OF WAR	1
THE PRINCIPLES OF WAR AND THEIR DOCTRINAL INFLUENCE	4
THE PRINCIPLES OF WAR	4
Evolution of the American Adopted Principles	5
Contemporary Views	8
THE PRINCIPLES' INFLUENCE THROUGH BASIC DOCTRINE	12
The "Renaissance" in US Military Basic Doctrine	13
The Principles' Influence through Doctrine--A Conceptual Model	14
FLEXIBILITY--THE MISSING PRINCIPLE	17
DEFINITIONS	18
Common Definitions of "Flexibility"	18
Proposed Doctrinal Definition	19
FILLING THE CONCEPTUAL "GAP"	20
Flexibility's Inherent Conceptual Strengths	21
Unlocking the Concept--Overcoming Intellectual Obstacles ..	28
THE GROWING IMPERATIVE	33
The Future Global Security Environment	34
Flexibility's Utility in the 21st Century	36

SUMMARY AND RECOMMENDATIONS	39
CONCLUSION	42
APPENDIX 1	45
APPENDIX 2	49
ENDNOTES	55
BIBLIOGRAPHY	71

LIST OF ILLUSTRATIONS

Figure 1	16
Figure 2	21

LIST OF TABLES

Table 1	6
Table 2	7
Table 3	10
Table 4	10
Table 5	11

THE GROWING IMPERATIVE TO ADOPT "FLEXIBILITY" AS AN AMERICAN PRINCIPLE OF WAR

I bend but do not break.¹

— Jean de La Fontaine
Fables, 1668

With those six words French author Jean de La Fontaine captures two compelling metaphors which should not be lost on any warfighter. Resistance to breaking--or, in essence, resistance to defeat--is so intuitively vital to success in war that little more needs to be said about the notion. The ability to *bend*, on the other hand, may not strike the American warrior's intuition with the same immediacy. It should. For as this author will show, flexibility--the ability to "bend"--is a foundational warfighting attribute which should be embraced and adopted by the US military community as a principle of war (or operations²). Further, due to both evolutionary and potentially revolutionary forces, the imperative to incorporate flexibility as a principle of war will only grow as the US moves into the 21st century. Those points represent the thesis of this paper.

One can rightly ask whether capturing the elusive list of "true" principles of war--an effort dating to antiquity--really matters. Some question the 20th century development of an almost prescriptive, "checklist approach" to dealing with what many believe to be the essentially unquantifiable art of winning wars.³ The answers to those provocative questions have been

debated for decades. More pragmatically for this paper's purposes is this realization: Adopting and codifying principles of war in doctrine is a fully institutionalized US military practice, yielding an attendant influence on American military Joint and Service cultures. Risk of misinterpreting or misapplying the principles is accepted by the institution given the perceived benefits. Given this policy, however, two things become crucial. One, the collective list of principles must be free of any significant conceptual gaps. Two, the list should contain an inherent mechanism to ensure the principles are synthesized in a balanced and rational manner. Those two imperatives guided the author's thesis formulation.

One could also counter-argue the concept of flexibility is sufficiently grounded within the existing nine principles (listed in Appendix 1), particularly within the principle of maneuver, and needs no further elaboration. Such embedding, however, not only fails to give flexibility its full regard, but it can represent a subtle, cultural suppression of the idea. While the American warrior generally understands the need for flexibility (and its close cousin, adaptability), the degree to which the concept is appreciated, or measures up, relative to the existing principles represents an intellectual "gap" or "blind spot" in the author's view. Adopting flexibility as a principle of war is the right solution--not only because it closes this gap, but

because, within the current context, it is a fundamental principle.⁴

One point needs emphasizing. This study does not challenge the nine existing American principles of war in any appreciable way; nor does it indorse them (compelling arguments may exist for change⁵). Rather, it concludes this: *within the current framework created by the nine adopted principles of war, one of the most fundamental principles--flexibility--is missing from that structure.*⁶ If that structure were to change, the concept of flexibility must still be preserved. In the author's view, a failure by the US military community to codify flexibility as a principle of war is not just significant, it may become profound as military operations enter the highly uncertain and complex environment of the 21st century and the Information Age.

To make this case, principles of war are reviewed from both historical and contemporary perspectives. Notably, the concept of flexibility is not a complete stranger as a warfighting tenet or principle. Then, US military basic doctrine is briefly examined with a focus on the recent renaissance of Joint capstone and keystone doctrine. Using a conceptual model, the author describes how this overarching doctrine lays the foundation for inculcating the principles in the US military. This becomes the intellectual framework for the paper's thesis. Then, the English definitions of the word "flexibility" are reviewed, establishing the basis for its common understanding. This is followed by the

author's proposed doctrinal definition of flexibility as a principle of war. This definition is then used throughout the rest of the paper, in which flexibility as a warfighting principle is developed and justified. By the end it should become apparent the American principles--and the prospects for future military success--can be fundamentally improved by embracing flexibility as a principle of war. First, however, it's helpful to briefly review the bases for the American adopted principles.

THE PRINCIPLES OF WAR AND THEIR DOCTRINAL INFLUENCE

A symbiotic relationship exists between principles of war and basic doctrine. This section addresses that relationship by first examining the historical evolution of the American principles and contemporary views about them. It then considers the recent emergence of basic US Joint doctrine and presents a model illustrating the influence of the principles, via both Joint and Service doctrine, on US military culture.

THE PRINCIPLES OF WAR

The first step is to understand the historical basis for the principles of war, reflecting Americans' "instinctive search for valid rules or guides."⁷ That historical review is followed by a discussion of several of the contemporary studies of the principles found in the literature.

Evolution of the American Adopted Principles

Lieutenant Colonel John Alger performed a valuable service when he published the definitive work, *The Quest for Victory: The History of the Principles of War*, in 1981. In this book he chronicles the centuries of development leading to today's nine American adopted principles, as well as those of other major countries.⁸ Russell W. Glenn, formerly a U.S. Army officer and now a senior defense and political analyst with RAND Corporation, augments Alger's work as well as captures much of the subsequent Western contemporary thought in his comprehensive Spring 1998 *Parameters* article addressing the principles of war.⁹

Both treatises reveal the distilled insights of the most influential military thinkers through the ages, among them Sun Tzu, Thucydides, Niccolai Machiavelli, Antoine-Henri Jomini, Carl von Clausewitz, Alfred Thayer Mahan, J.F.C. Fuller, B. H. Liddell Hart, Bernard Brodie, and others. Implicit in these works is the clear realization that there has never been, nor likely ever will be, one universally accepted description or set of fundamental truths, principles, laws, maxims, theories, arguments, axioms, rules, or judgments about how to consistently secure victory in conflict.¹⁰ Not surprisingly, even agreement on what defines the concept of a "principle" eludes consensus.¹¹

Even so, and as Alger notes below, in the twentieth century, prescriptions for principles of war began to coalesce around the

practice of developing comprehensive lists of single-word or short-phrase aphorisms:

The term "principles of war" did not always connote the idea of a list of rules intended to facilitate the conduct of war. In fact, two distinct definitions of the term have been widely used. First, the principles of war represented a commonly accepted philosophy concerning the myriad activities that collectively compose the conduct of war. In the present century, however, the idea that the principles of war are an enumerated list of considerations, few in number, capable of being simply expressed and essential to the successful conduct of war, has become increasingly accepted.¹²

This latter practice is primarily a Western one, with Britain and the US most fervently employing it. In 1921, the U.S. Army formally codified, for the first time, such a list of nine somewhat prescriptive "principles of war" in War Department Training Regulation 10-5.¹³ This mirrored the J.F.C. Fuller-inspired British thinking of the time, including his interpretation of the writings of Jomini and Clausewitz among others, reflecting a strong Napoleonic era influence and

COMPARISON OF 1921 AND CURRENT PRINCIPLES OF WAR ¹⁴	
1921 PRINCIPLES	CURRENT PRINCIPLES
Objective	Objective
Offensive	Offensive
Mass	Mass
Economy of Force	Economy of Force
Movement	Maneuver
Surprise	Surprise
Security	Security
Simplicity	Simplicity
Cooperation	Unity of Command

Table 1

tactical focus on the battle.¹⁵ The American list experienced much debate and several perturbations (including disappearing for two extended periods) before the U.S. Army settled, in 1949, on the version in use today.¹⁶ Debate notwithstanding, Table 1 shows the relatively minor differences between the Army's 1921 version and the current list. This list has also been adopted by the other US military Services and by the Joint community (discussed later).

Table 2, taken primarily from the 1997 issue of Armed Forces Staff College (AFSC) Pub 1, compares the recent-day principles of several countries (including the former Soviet Union). While

PRINCIPLES OF WAR¹⁷				
<i>UNITED STATES</i>	<i>GREAT BRITAIN AUSTRALIA</i>	<i>FORMER SOVIET UNION "Principles of Military Art"</i>	<i>FRANCE</i>	<i>PEOPLE'S REPUBLIC OF CHINA</i>
Objective	Selection & Maintenance of Aim			Selection & Maintenance of Aim
Offensive	Offensive Action			Offensive Action
Mass	Concentration of Force	Massing & Correlation of Forces	Concentration of Effort	Concentration of Force
Economy of Force	Economy of Effort	Economy, Sufficiency of Force		
Maneuver	Flexibility	Initiative, Mobility & Tempo		Initiative & Flexibility
Unity of Command	Cooperation	Interworking & Coordination		Coordination
Security	Security			Security
Surprise	Surprise	Surprise	Surprise	Surprise
Simplicity				
	Sustainability, ¹⁸ Maintenance of Morale	Simultaneous Attack on All Levels, Preservation of Combat Effectiveness,	Liberty of Action	Morale, Mobility, Political Mobilization, Freedom of Action

Table 2

useful, the listing of words in the last three columns should be taken only as an American *interpretation* of the warfighting principles embraced by those countries--not a cataloguing of formally adopted terms. This point is made to highlight the very American (and British) tendency in the twentieth century to distill principles of war into short phrases and words. This study does not judge the validity of that practice; rather, it simply acknowledges that this 78-year, fully institutionalized practice exists and will likely continue for the foreseeable future. That is key to this paper, for it's the continued existence of a highly visible and relied upon list of principles that demands it be well conceived and carefully designed. Before discussing that further, it's helpful to consider other recent literary works addressing the American principles of war.

Contemporary Views

Any person or organization braving to pronounce in the military literature a set of "principles of war" could be certain the list would be quickly (if not ruthlessly) challenged. The US-adopted principles are probably the best example of that, being variously dissected, discussed, supported, ridiculed, questioned, and in general, critically examined for nearly 80 years. That is healthy. As General Frederick J. Kroesen wrote, "there is something satisfying about a set of postulates that can be discussed, argued about, and referred to by the members of our profession who take seriously the intellectual challenge of war

and combat operations."¹⁹ Given their susceptibility to "intellectual attack," the fact that the American-adopted principles have survived for nearly 80 years with only minor changes is actually quite remarkable.²⁰ However, as the world moves into a new millennium, into the second decade following the collapse of the Soviet Union, and into what many believe is a true revolution in military affairs (RMA), new arguments are surfacing to modify--if not completely overhaul--the American principles of war. Below are three of the more recent treatises making such recommendations. All three look at the issue from different perspectives.²¹ They are summarized here to give the reader a fuller perspective of current dialogue regarding the American principles of war.

In 1995, five members of the U.S. Army War College Strategic Studies Institute (SSI) published a study of the American principles of war focused on the *strategic* (vice operational or tactical) level of war²² and their applicability in the 21st Century.²³ The authors offer a set of strategic principles, within the framework of the existing nine principles, that could help guide military strategists in the more "intellectual" (read, "strategic") aspects of warfighting.²⁴ The SSI team did not directly challenge the nine traditional American principles.²⁵ However, when considering the "strategic" realm of warfighting--upon which, they assert, the traditional principles were not founded--they recommend modifying the terms associated with six

of the nine principles.²⁶ Table 3 summarizes the terminology changes.²⁷

SSI's "Strategic" Principles of War Versus the Traditional Principles	
Traditional Principles	"Strategic" Principles
Objective	Objective
Offensive	Initiative
Unity of Command	Unity of Effort
Mass	Focus
Economy of Force	Economy of Effort
Maneuver	Orchestration
Simplicity	Clarity
Surprise	Surprise
Security	Security

Table 3

Russell Glenn's 1998 *Parameters* article had a different focus, addressing the intellectual conundrum of having to deal with two sets of adopted principles--principles of war, and now, principles of military operations other than war (MOOTW)²⁸ (See Table 4). This second list was born from the realization that a growing segment of military operations simply doesn't meet the traditional definition of "war." Hence, the principles of war

PRINCIPLES OF OPERATIONS OTHER THAN WAR
Objective
Perseverance
Legitimacy
Restraint
Unity of Effort
Security

Table 4

weren't entirely applicable. Glenn suggests the U.S. Army has an opportunity to synthesize the two lists into one before releasing

its next version of FM 100-5, *Operations*.²⁹ His article raises many of the longstanding issues regarding the purpose, utility and application of doctrinal principles of war. Some, like below, are even recommending "wiping the slate clean."

In late 1998, Robert R. Leonhard, an active duty U.S. Army lieutenant colonel, released a provocative, yet insightful book titled *The Principles of War for the Information Age*.³⁰ In his book, Leonhard rejects the entire set of principles of war based on what he considers both their obsolescence and intellectual bankruptcy in dealing with conflict.³¹ Leonhard does not reject the notion of identifying and espousing principles of war. He asserts, though, that a "principle" must not be treated as an "aphorism" (which he defined as "a truth of some sort"³²) or a prescription; but rather, as a basis for dialogue and argument.³³ He proposes three, immutable "laws of war" underpinning his seven

Leonhard's Laws of War and Principles of Information Age Warfare ³⁴		
LAWS OF WAR		
The Law of Humanity		
The Law of Economy		The Law of Duality
PRINCIPLES OF INFORMATION AGE WARFARE		
Principle of Knowledge and Ignorance (Independent Principle)		
Two Principles of "Aggression":	Two Principles of "Interaction":	Two Principles of "Control":
Dislocation and Confrontation	Opportunity and Reaction	Option Acceleration and Objective
Distribution and Concentration	Activity and Security	Command and Anarchy

Table 5

"principles of information age warfare." These are summarized in Table 5. Though his proposed principles may at first appear to carry a format roughly similar to the traditional nine, that is where any similarity abruptly ends. Unlike the first two works presented, Leonard's calls for a radical shift in how the military uses and thinks about principles of war, and his ideas deserve careful consideration. In essence, the 78-year-old American framework would need to be fundamentally altered. This author has concluded such a change is not appropriate and presents counter-arguments in Appendix 2. These arguments need not, however, detract from Leonhard's valuable contribution to the field.

All three works above--SSI's, Glenn's and Leonhard's--carry relevance for this study in different ways and are variously addressed within this paper. First, however, it's helpful to consider the modern role of US military doctrine.

THE PRINCIPLES' INFLUENCE THROUGH BASIC DOCTRINE

The right vehicle for championing the principles of war is basic doctrine.³⁵ That idea is succinctly stated in U.S. Army TRADOC Pamphlet 525-5: "Doctrine is the engine that drives change . . . That is so because doctrine embodies our ideas, and ideas drive change."³⁶ This section examines that key relationship by first reviewing the recent "renaissance" in US Joint doctrine, particularly in the development of overarching capstone and keystone doctrinal documents. Then, the author presents a simple

conceptual model depicting how doctrinal warfighting principles are instilled in the organizational culture, and how this ultimately affects warfighting ability.

The "Renaissance" in US Military Basic Doctrine

Of the many changes brought about by the Goldwater-Nichols Act (GNA) of 1986, doctrinal policy changes are now emerging as some of the most significant and far-reaching. Title 10, United States Code, was changed to specifically charge the Chairman of the Joint Chiefs of Staff (CJCS) with the responsibility for "developing doctrine for the joint employment of the Armed Forces."³⁷ No single individual or organization had previously been responsible for developing or promulgating Joint doctrine.³⁸ The 1986 GNA effectively established a clear doctrinal hierarchy shattering the operational preeminence of the separate Service doctrines over what little Joint doctrine previously existed.³⁹ However, this has not, conversely, caused any "marginalization" of the Service doctrines. They remain, necessarily, robust.

Most importantly, the Goldwater-Nichols Act has proved the catalyst for a very significant and positive across-the-board *refocusing* on *all* military doctrine. On the Joint side, the tangible result has been a virtual explosion of doctrinal publications.⁴⁰ This rapid growth hasn't been without problems,⁴¹ but the process is maturing, and the Joint doctrine framework is proving viable.⁴² On the Service side, doctrinal authors now strive to ensure operational congruence with Joint publications.

References to the Joint doctrine system and implicit submission to the Joint doctrine hierarchy are clearly evident.⁴³

This has created a heretofore-not-seen "doctrinal synergy" which is only recently becoming fully appreciated. Though it has proved a difficult, iterative process, it appears the Joint community and the Services, under the guiding influence of the Chairman and the dual-hatted Joint/Service Chiefs, have struck a delicate but effective balance between Joint doctrine "preeminence" and Service doctrine "freedom of expression."⁴⁴ The resulting robust library of US military Service and Joint doctrine represents the doctrinal "renaissance" referred to. This translates into increased legitimacy of US military doctrine in general.

The Principles' Influence through Doctrine--A Conceptual Model

What that all means, in the simplest of terms, is this: people are paying more attention to doctrine, and doctrine, in turn, is having an even stronger influence on individuals and organizations. The following passage by Major General David Sawyer, at the time the Director, J-7, Joint Staff, captures nicely this process of organizational influence by way of doctrine:

The purpose of developing and disseminating authoritative doctrine under a well-regulated system is *not* to issue rigid fighting instructions but rather to *share knowledge* among warfighters. This knowledge then is *internalized* for use in decisionmaking *regardless of the uniqueness of the situation, rank of the individuals involved, or level of the decision.*

Moreover, this shared body of knowledge enables those who must implement decisions to use their understanding of the general principles on which they are based to achieve specific goals.⁴⁵ (*italics added*)

This concept of pervasive influence can be most widely applied to overarching Joint "capstone" and "keystone" doctrinal documents and the Services' "basic" doctrinal documents.⁴⁶ These are the same documents traditionally used to codify the American principles of war, and this is done without exception in the above Joint, Army, Air Force and Navy doctrine documents. Most notably, the American principles are prominently discussed in Chapter III of Joint Pub 1, *Joint Warfare of the Armed Forces of the United States*,⁴⁷ as well as in Chapter II of Joint Pub 3-0, *Doctrine for Joint Operations*, with expanded definitions in a dedicated appendix.⁴⁸ Here, Joint Pub 3-0 unabashedly states the principles of war "are the enduring bedrock of US military doctrine."⁴⁹ Similar statements are made in the Service basic doctrines.⁵⁰ That message regarding the importance of the principles, as well as the nine principles themselves, pervade the US military culture. From initial officer training, through all levels of professional military education, operational training, policy making, requirements and resourcing decisions, Joint and Service planning, and ultimately operational execution, the principles influence activities in some way.

The model in Figure 1 graphically portrays these many direct and indirect influences, with basic doctrine representing both

The Cascading Influence of Basic Doctrine on Leader Development and Organizational Culture

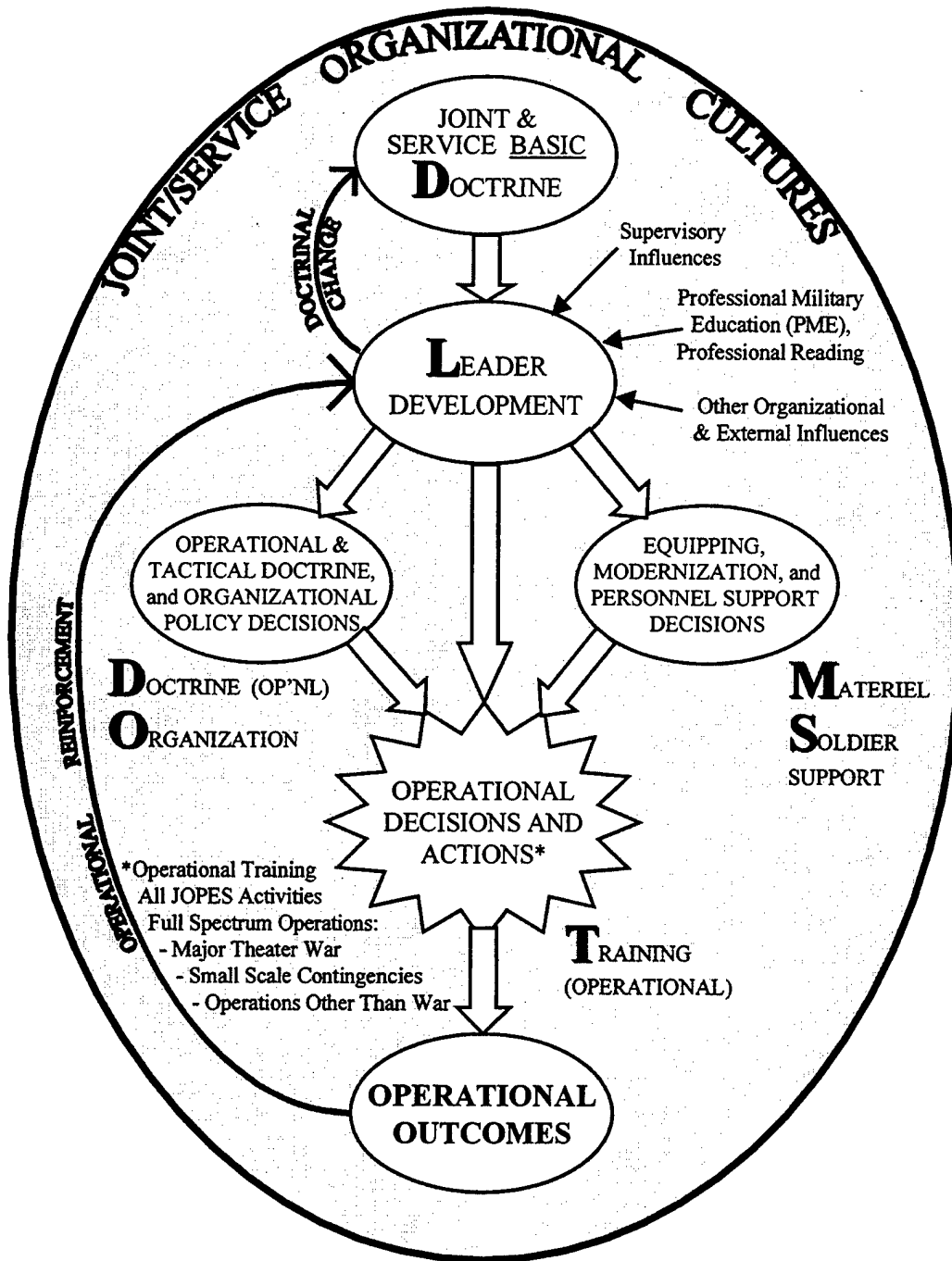


Figure 1

the catalyst and the continuity of thought. As a measure of the comprehensiveness of that influence, the model shows how all six

of the traditional U.S. Army DTLOMS domains (Doctrine, Training, Leader Development, Organization, Materiel, and Soldier Support) are touched in the process.⁵¹ Not only are training and leader development heavily influenced, but organizational decisions, materiel procurement and soldier (i.e., personnel) support are at least indirect beneficiaries. Lastly, as can also be seen, the process is one of continuous reinforcement.

Hence, the principles of war are becoming more deeply ingrained in US military culture--and in the mind of the American warfighter--as basic doctrine grows in relevance. Conversely, instituting any change in these fundamental, cultural beliefs about warfighting must start with basic doctrine. As will be shown, one such change is in order.

FLEXIBILITY--THE MISSING PRINCIPLE

Nothing is changeless.⁵²

— Mao Tse-tung

Appropriately, Mao was writing about the need to keep doctrine relevant for the times. Actually, for this paper's purposes, his statement carries an even more transcendent message. The genuine conviction that "nothing is changeless" is the essence of flexibility. As suggested previously, institutionalizing that belief in the American military culture begins with changing basic doctrine.⁵³ This section expands on that imperative by considering definitions of both the word and

the doctrinal principle of flexibility, and then by justifying flexibility's value as a principle of war in both conceptual and tangible ways.

DEFINITIONS

Given the assumption that common or societal perceptions of a word's meaning can't be controlled, it's important to understand and appreciate flexibility's common definitions. These definitions are reviewed below, followed by the author's proposed doctrinal definition of the principle of flexibility.

Common Definitions of "Flexibility"

The common definitions of "flexibility," including the word's synonyms, represent the center point from which individual interpretations of its meaning begin to diverge. Surveying the field of popular dictionaries yielded three consistent definitions for the word "flexible" (all the dictionaries define "flexibility" (the adverb) as "the quality or state of being flexible," or something to that effect). A representative set of these three definitions of "flexible" (the adjective), in the order listed, is: "1. Capable of being bent or flexed; pliable. 2. Susceptible to influence or persuasion; tractable. 3. Responsive to change; adaptable: *a flexible schedule*."⁵⁴ Popular synonyms for "flexible" (in alpha order) are: adaptable, agile, ductile, elastic, extendable, limber, malleable, resilient, plastic, pliable/pliant, springy, and supple.⁵⁵ The aggregate of these definitions and common synonyms captures the idea, or

concept, of flexibility that *has to be accepted* when considering how the public at large identifies with the word. Similarly, one can't stray far from this idea or concept in formulating a description of flexibility as a principle of war.

Proposed Doctrinal Definition

Below is the author's proposed doctrinal definition of flexibility as a principle of war. It makes primary use of the third and first common definitions above (in that order), but it does not completely avoid the second, for a certain "susceptibility" to influence is deemed a positive attribute, suggestive of a healthy open-mindedness.⁵⁶ The doctrinal definition also incorporates several of flexibility's more common synonyms. The bullet format of the below definition parallels those definitions found in Joint Pub 3-0 (which all begin with, "The purpose of"). The term "military operations" (versus "war" or "conflict" or other term) was specifically chosen to permit wide application as a principle of war, or of operations other than war, or simply, as a principle of operations.⁵⁷

Flexibility

- Bullet #1 (Short Definition): The purpose of flexibility is to be responsive to change and adaptable to the volatility, pressures and complexities of military operations, while constantly focusing on the objective.
- Bullet #2 (Expanded, Supporting Definition): Flexibility is both a state of mind and a characteristic of effective military units. It is an antidote to surprise, uncertainty and chance. Flexibility represents the fundamental ability to avoid dogmatic rigidity and to "bend" as each situation

demands--to be receptive, responsive, and adaptive--and like a flexible, resilient rod, to neither break nor lose orientation. Flexible units and leaders adapt to changing conditions in opportunistic and innovative ways, yet never lose focus on the commander's intent. Flexible leaders encourage critical, creative thinking, ensuring all realistic alternatives and possible outcomes are considered throughout mission planning and execution. Flexibility--the antithesis of rigidity--is the crucial ability to synthesize all of the principles, and to prioritize their application in each unique situation to ensure success.

It's important to immediately appreciate two technical points about this doctrinal definition. First, the principle of flexibility is congruent with the structure of the existing list; i.e., it represents a *condition, activity, behavior or effect* (primarily the first three) deemed essential to success in war. Second, the concept is similar to the other principles in that it's applicable (maybe more so than any of the other nine) across a very broad horizontal and vertical spectrum of activity. Armed with this definition, it's now instructive to consider the full power of the concept of flexibility as a principle of war.

FILLING THE CONCEPTUAL "GAP"

How forcible are right words!⁵⁸

— The Holy Bible: Job

As discussed earlier, the "right" word or idea, effectively promulgated, will positively influence people and organizations. This section focuses on the warfighting power derived from the word, and from the idea of, flexibility. Following that, the

author postulates on the subtle yet specious reasoning that has likely prevented flexibility's adoption as a principle of war.

Flexibility's Inherent Conceptual Strengths

The above doctrinal definition not only reveals flexibility's enormous strength as a warfighting principle across the wide range of military operations, but also how it acts as an enabling mechanism to synthesize the other principles. It underpins them, while paying due homage to the preeminent principle of objective.⁵⁹ This represents the unique, "dual-hatted" nature of flexibility as both a principle and as a harmonizing force for the others. This is depicted in Figure 2. Note how the central focus is on the principle of objective, while flexibility synthesizes the application of all the principles.

Flexibility's "Dual-Hatted" Role as a Principle of War
and as a Synthesizer of the Other Principles

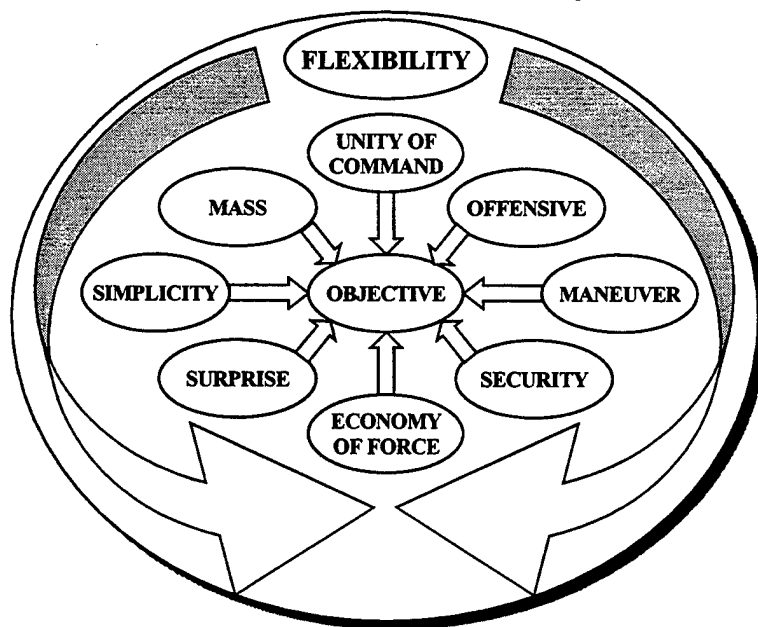


Figure 2

If one were forced to distill all principles of war into one thought, or one idea, the most basic would have to be the notion of "winning," or "victory," or "success," or "achieving the aim" or "achieving the objective." However, if one were permitted to combine that with just one *additional* idea, few if any carry the universal utility and transcendent power of the concept of flexibility.⁶⁰ Consider the following descriptions of the essential thinking of two of history's master strategists:

Sun Tzu believed that the *only* constant in war is *constant change* and to illustrate this he used several figures of speech, among which is 'of the five elements, *none is always predominant.*' . . . Sun Tzu sees the business of a general to consist, in part, of . . . *manipulating [changes] to his advantage.* . . . [His] theory of *adaptability* to existing situations is an important aspect of his thought. Just as water adapts itself to the conformation of the ground, so in war one must be *flexible*; he must often *adapt his tactics* to the enemy situation . . . [revealing] another aspect of the *intellectual pliancy* which distinguishes the expert in war.⁶¹ (*italics added*)

[Clausewitz asserted one of the permanent characteristics of war] was the free play of human intelligence, will and emotions. These were the forces that dominated the chaos of warfare . . . [He] exposed the inadequacy of prescriptive systems when faced with the infinite resources of the mind and spirit . . . The realm of genius . . . rises above all the rules . . . Theory and its resultant doctrines are thus subordinate to the great creative talent, and to the universals of reason and feeling that it expresses.⁶²

While each was somewhat different in focus, both Sun Tzu and Clausewitz were distilling warfighting down to an essentially intellectual pursuit of the object within the unavoidable environments of chance, change, chaos and friction. In essence

what both theorists are strongly suggesting is the fundamental need for a disposition of *flexibility*.

Further, the need for flexibility is equally strong at all levels of war--tactical, operational, and strategic--although it can manifest itself in different ways at the different levels. The SSI study (discussed earlier)--a noteworthy attempt to capture "higher level" warfighting principles while preserving the traditional nine-principle framework of the last 78 years--reveals the inherent difficulty of making one set of terms apply to all the essentials and levels of warfighting. However, the authors would doubtless have found no reason to modify the term or the concept of flexibility in describing this tenth strategic principle of war. On the tactical and operational levels the same holds true. The infantry scout platoon, unexpectedly hit with nerve agent, suffering heavy casualties and cut off from its command structure; the air expeditionary force commander, still deploying enroute to the forward base and forced to generate initial strike sorties 24 hours ahead of the planned H-hour due to enemy advances; the joint force commander whose entire primary and secondary operational C3 links are electronically sabotaged during combat strike operations; or the theater CINC ordered to prosecute a high-risk, short-notice amphibious non-combatant evacuation operation--all of these units and leaders will better cope with those situations through flexible planning, or if planning fails, through flexible adaptation. Flexibility

conditions the mind to accept the tactical, operational and strategic truth that no plan survives first contact. It helps create a certain "tolerance for uncertainty and ambiguity."⁶³ Clearly, flexibility carries broad applicability across the wide range of military activities.

Moreover, when taking the view that *preparations* for war are an essential aspect of *warfighting*, the benefits of adopting flexibility as a principle become greatly magnified. While flexibility's strengths are most easily conceptualized in the "post-contact" phase of conflict, i.e., as a response, flexible *planning* can be the vital force that shapes the outcome. A flexible planning disposition is one that's not necessarily satisfied with the first answer nor the popular one. It represents a critical search for blind spots and overlooked branches and sequels within the time available to plan. Flexible leaders carry a healthy respect for chance, uncertainty and friction, creating an environment that rewards--not stifles--creative and innovative thinking during planning. Finally, flexible warfighters couple that skill with a decisive sense of purpose and timing, always knowing when to "move out."

Preparations for war, however, comprise much more than the tactical and operational planning described above, and flexibility plays a key role here, too. The Figure 1 model depicts how a doctrinal appreciation for flexibility touches all DTLOMS domains, influencing everyday thought and behavior. This

heightened cultural appreciation for flexibility creates a circular pattern of reinforcement, whereby adaptiveness, creativity and innovation would be institutionalized in every facet of the organization. This in turn creates economies that free up resources. In the end, preparations for war and war waging ability are enhanced.

Flexibility also intuitively applies to any military operation, whether or not strictly defined as "war." Russell Glenn's recent study (discussed earlier) highlights the military's growing roles in non-warlike missions and the challenge of capturing "principles of non-war" in doctrine. The current six "Principles of Military Operations Other Than War" found in Joint Pubs 3-0 and 3-07 (and in some Service documents) capture the MOOTW principles in a fashion similar to the nine war principles. Much like the nine principles, a conceptual gap exists, and it's this same synthesizing force--flexibility--which is missing. There can be no more compelling need for flexibility than, say, in the environment of a large peacekeeping operation. Unclear or evolving objectives and difficult interagency coordination, complex regional socio-cultural and nationalistic sources of hostile intent, numerous international military forces represented under different commanders, and loosely controlled private and non-governmental organizations all pursuing various agendas and under various sets of rules, are the norm. In this environment, flexibility is not only an "antidote to surprise,

uncertainty and chance," but it encourages a mindset that helps overcome frustration. Flexibility should clearly be a fundamental principle of military operations other than war.

Equally important, flexibility is tacit recognition that doctrine--*including the principles of war themselves*--must never become dogma. Flexibility underscores the notion that every principle need not apply with equal utility in every situation (some even suggest, for example, that "the [current nine] principles of war themselves in some ways contradict each other"⁶⁴). The idea that all principles are not equally and completely useful in all cases may offend the purist who believes in their inviolate sanctity. However, the essence of flexibility is to not take so lofty (or dogmatic) a view. The forms that conflict can take--and hence the solutions--can be infinite. This represents the crucial synthesizing function of the concept and principle of flexibility.

Interestingly, and in this same vein, many works in the literature addressing the principles of war can be thought of as pleas for *flexible application* of the principles themselves! It's as though an unwritten rule exists (discussed more in the next section) suggesting that flexibility is not to be listed as a principle.⁶⁵ This, in turn, drives voluminous discussions on the need to *flexibly apply* the principles. Consider the following passage from Robert Leonhard's work:

. . . we usually find that most writing on principles of warfare recognizes the need for flexible

application. The requirement for flexibility derives from two factors. First, . . . every military situation is different. Therefore, the theory and practice of arms must adapt to each unique situation. But the other factor requiring flexible application is that the principles of war themselves in some ways contradict each other . . . thus requiring great flexibility of thought and application.⁶⁶

This is a recurring theme in the literature. General Donn A. Starry, following his tour as U.S. ARMY TRADOC Commander, authored a much-cited article on the principles of war. Like Leonhard, he makes the argument for flexibility, yet more subtly, without ever using the word. Consider his statement below (certain terms are italicized by this author for emphasis):

The military professional derives from this analysis [of warfare] the fundamental principles--their *combinations* and applications--which have produced success on the battlefields of history. The principles of war thus derived are, therefore, a part of the art rather than the science of war. They are *neither immutable* nor causal, nor do they provide precise mathematical formula for success in battle. Their value lies in their utility as a *frame of reference* for analysis of strategic and tactical issues.⁶⁷

Author Paul Katz made the same point in a rudimentary but clear fashion when he wrote, "It seems the principles of war are incomplete and that some of the principles are true only in particular situations."⁶⁸ Very true, yet what principle *within* the current list conveys those important points? His statement makes for a good point of departure. As will be discussed below, it's time to resolve both of the dilemmas he describes.

Unlocking the Concept--Overcoming Intellectual Obstacles

As seen, strong intuitive arguments support flexibility as a principle of war. That, of course, begs the question: why isn't flexibility an adopted principle? Why does it seem to be suppressed? There appear several reasons for this, yet none of them, after close analysis, justify flexibility's exclusion as a principle of war. The author must emphasize the following are purely intuitive arguments--little if any qualitative support exists; therefore, the author tried not to stray too far from clear, supportable logic. On the other hand, to the extent this section simply attempts to explain why flexibility is absent, the author takes some license. Let's explore each argument.

First, one could reason that flexibility is adequately represented within the principle of maneuver. The opening line in Joint Pub 3-0 defining maneuver would tend to support that. It states, "The purpose of maneuver is to place the enemy in a position of disadvantage through the *flexible* application of combat power."⁶⁹ Typical discussions of the concept of maneuver invariably highlight flexibility in one way or another. In fact, effective maneuver *demands* high degrees of flexibility--both mental and physical. This is not contestable. But the key question becomes, *are the two concepts sufficiently similar to warrant exclusion of one over the other as a principle of war?* The answer is no. Flexibility brings too much to the table that maneuver can't; so much so, that some militaries have adopted

flexibility as a principle *at the expense of listing maneuver*.⁷⁰ Incorporating flexibility would actually release some of the current "semantic burdens" on the principle of maneuver, allowing a better focus on its more traditional, physical definition, with "borrowing as needed" from the companion principle of flexibility. While the word "flexibility" isn't found within the Joint Pub 3-0 definitions of the other principles, the concept is nearly as prevalent as it is in maneuver, again reflecting flexibility's unique yet crucial synthesizing value.⁷¹ Hence, the maneuver argument is weak at best.

Second, the above logic might dangerously lead to an almost opposite and equally incorrect conclusion; i.e., that flexibility is so pervasive and fundamental, that "it goes without saying." What "principle," however, could be so "fundamental" that it "goes without saying?" The Services, in what sometimes seems an attempt to compensate for flexibility's absence as a principle of war, have manifested the term in other ways. The U.S. Air Force has codified "flexibility and versatility" as "tenets of aerospace power" in AFDD-1.⁷² The U.S. Army lists flexibility as a "characteristic" of the defense and lists the sister concepts of versatility and agility as "tenets" of Army Operations.⁷³ The U.S. Navy, in Chapter One of NDP-1, contains the following statement in the section titled, "The Character of Naval Forces:"

The qualities that characterize most modern naval forces as political instruments in support of national policies are the same as those that define the essence

of our naval Services today. These qualities are readiness, flexibility, self-sustainability, and mobility.⁷⁴

Some Joint doctrine documents reflect similar efforts. For example, Joint Pub 4-0, *Doctrine for Logistics Support of Joint Operations*, lists flexibility as one the seven Principles of Logistics.⁷⁵ Some of this can be attributed to valid uses of the term "flexibility" to describe specific capabilities or requirements within an activity or medium; i.e., not as a principle of war. However, as shown, the concept of flexibility carries much broader application--it is an essential, immutable requirement for success, supported by the teachings of history's great strategists. Can anything demonstrated so fundamentally important in war be excluded as a *principle* of war? Clearly, the answer is no.

Third, could it be--and the author's evidence here is anecdotal at best--that the notion of flexibility connotes something distasteful to the psyche of the American military officer? This is admittedly a weaker argument, but it may contribute in some way to a cultural suppression of the word. Recall that the second of three traditional definitions of flexibility address a "susceptibility" to influence or persuasion. While this is the least applicable of the three definitions as a principle of war,⁷⁶ the concept certainly doesn't play well intuitively against the more prevalent Napoleonic and Jominian era notions of annihilation, total war, if not the

sometimes blind glorification of the offensive. Sun Tzu's indirect approach, which the US military never fully appreciated during the Viet Nam conflict (to its demise), seems to play more to the intuitive notion of flexibility. One could ask whether Pickett's Charge, or Verdun, or other large-scale, force-on-force human disasters might have happened had the leaders of the day had a more ingrained appreciation for the notion of flexibility. Though these rhetorical if overly simplified questions have no easy answers, the author is attempting to describe a cultural force that may in some way be contributing to flexibility's suppression today.

Similarly, flexibility can be thought of as acting at cross-purposes with doctrine itself. Doctrine is loosely defined as "the way things ought to be done." Flexibility can represent just the opposite! If taking this to the more extreme notion of non-conformity, flexibility can be perceived as *heresy* in a rigid, dogmatic environment. While this author is in no way encouraging a disregard for established rules and norms, leaders must conversely appreciate the dangers of "blind" adherence--as well as leadership styles that demand it. There is plenty of anecdotal evidence to suggest stifling, non-flexible dispositions exist in the military. Some believe this is the pervasive norm. Respected military academician and sociologist Gregory Foster, in a classic think piece on the state of today's officer corps, recently wrote the following:

As an institution, the military largely discourages independent thought and critical inquiry. This is an unfortunate, self-defeating contradiction for a profession whose *raison d'être* is closely tied to outwitting adversaries and grappling with uncertainty. Undue emphasis on obedience and loyalty to the chain of command stifles dissent and erodes the spirit of inquiry so critical to institutional vitality. Pervasive doctrine, regulations, and operating procedures breed an orthodoxy that drives out any felt need for originality . . . Moreover, there are few rewards for . . . "unproductive" intellectual pursuits. By the time officers reach senior rank, they have been thoroughly schooled in *what* to think, yet poorly prepared in *how* to think."⁷⁷

If one accepts Foster's portrait--even if only partially--it is hard to deny the existence of some level of built-in cultural aversion to both the notion of flexibility as well as any suggestion to change basic doctrine to better accommodate it.

There seems, in fact, an almost inescapable "gravity" associated with challenging the integrity of a list of warfighting principles described in Joint keystone doctrine as "enduring bedrock."⁷⁸ Such a phrase is a protective measure to lift up and fence those fundamental warfighting ideas truly prized by the institution. There is much value in that. But that also carries a certain danger which many have recognized over the ages. Rigid adherence to prescriptive warfighting "rules" is likely as responsible for past military failures as any other general cause. Adopting flexibility as a principle of war and reinforcing that concept would introduce a moderating influence to counter that danger. "Doctrinal flexibility" need not be an oxymoron. Moreover, a doctrine that espouses

flexibility as a fundamental principle may help warfighters more effectively glean "true" lessons from past operations and avoid repeat mistakes. As historian Williamson Murray writes:

Throughout history, military organizations . . . have tended to extract from their experiences as well as the experiences of others *only what supported their preconceived notions* [italics added]. In fact, existing doctrine has in most cases become a barrier to adaptation and improvement. Unfortunately, military historians have largely ignored the process in which doctrine and battlefield experiences interact and the ways in which armies adapt or do not adapt to the changing conditions.⁷⁹

Could it be that our doctrine, in its present form, hinders that effective adaptation? Has the concept of flexibility, as a principle of war, simply been missing? One thing is certain: the need to think and act in ways counter to dogmatic and habitual forces will only grow as we move into the next century.

THE GROWING IMPERATIVE

This paper has thus far made the case for flexibility as a missing principle of war. In the next millennium, the need for flexibility in all military operations will simply grow. Debate over the very nature of future warfare, including the forms conflict will take, is proving a consuming activity. Potentially tectonic shifts in the world's global security environment will not only add impetus to existing arguments for flexibility, but they will drive new ones. To effectively grapple with these points, it's important to first attempt a rational prediction of what the future portends.

The Future Global Security Environment

The future global security picture remains murky at best. In its *1998 Strategic Assessment*, the Institute for National Strategic Studies loosely bounds its predictions with optimistic and pessimistic scenarios:

In the best plausible case, an expanded core or commonwealth of peaceful democracies could encompass most of the planet--with US partners shouldering an increased share of the burden of defending common interests and norms. China would reform and integrate into the core, rogue states and nonstates would be defanged, state failures would be averted, and energy and infrastructure would be secure. In the worst case, US friends could be free riders instead of responsible partners, China's reforms would founder, state failures would multiply, and rogues armed with WMD and nonstate actors would threaten the energy supplies and infrastructure of the core--leaving the [United States] superior but beleaguered. Well-armed enemies would be tempted to threaten the interests of the United States, using the fear of high casualties and possible attacks on the state itself to degrade America's ability to project power and national will.⁸⁰

Narrowing that call toward the pessimistic side (and by no means alone in his view), foreign policy analyst David Twining predicts traditional diplomacy and political processes--and the current promise of multilateral cooperation--will not be sufficient to deal with looming global challenges due to the inability of traditional institutions to adapt quickly enough.⁸¹ Adding complexity to that picture, Lieutenant General Claudia Kennedy, Deputy Chief of Staff for Intelligence, Headquarters, Department of the Army, suggests "historians may well dub the decades surrounding the change from the second millennium to the third millennium as an age of multiple and simultaneous revolutions."⁸² In sum, the

common predictive threads for the evolving global security environment are: significant complexity, turbulent change, wildly ranging scenarios of power centers and polarities, multiple revolutions across several domains, and--most importantly in this author's opinion--profound uncertainty.⁸³

From a warfighting perspective, the implications are daunting. First, the spectrum of possible conflict will only widen, and the military's charge to "fight" and "win" will take on an increasingly broader scope. This demands the US military continue its relevant industrial age practices while also adapting to new and evolving types of future conflict, including multiple forms of asymmetrical warfare. Further, many believe we are undergoing a fundamental revolution in military affairs (RMA), while others counter we are simply seeing technological change on a grand scale. Regardless, there is no denying the watershed change around us. The US military must shift its thinking to encompass a larger spectrum of warfare to both reduce risk and remain viable. Editors Barry R. Schneider and Lawrence E. Grinter come to a similar conclusion in their recent book, *Battlefield of the Future; 21st Century Warfare Issues*:

. . . the dangers of confronting an adversary with weapons of mass destruction or the capacity for strategic information warfare may prompt a very different thinking about the traditional "principles of war." Preparing for such an eventuality will require some major changes in C³I (command, control, communications, and intelligence), military doctrine, operational strategy, acquisition, equipment, logistics, coalition building, coalition warfare, and war termination. Some changes may even be necessary in

foreign policy regarding the kinds of commitments that US vulnerabilities, capabilities, and interests will permit in a more proliferated world or one where the enemy has utilized the technologies and methods of information warfare.⁸⁴

This passage is typical of recent studies of future warfare; namely, there is much hedging. That's to be expected, given the ambiguities, complexities and uncertainties in the coming millennium. As will be discussed, incorporating flexibility as a principle of war is the appropriate and fundamental way to help deal with these evolving challenges.

Flexibility's Utility in the 21st Century

In 1996, General John M. Shalikashvili, then Chairman of the Joint Chiefs of Staff (CJCS), unveiled his "conceptual template" to address joint warfighting in the evolving post-Cold War environment. This template was titled *Joint Vision 2010* (JV 2010).⁸⁵ While JV 2010's release has sparked a vigorous debate over its relative merits,⁸⁶ it's undeniably a unique and bold attempt to provide written, visionary direction where none previously existed. The Services are, for the most part, coalescing behind JV 2010 and adopting the conceptual framework formed by the four "emerging operational concepts" of Dominant Maneuver, Precision Engagement, Focused Logistics, and Full-Dimensional Protection, each enabled by Information Superiority and Technological Innovation.⁸⁷

A salient point for this paper is that JV 2010, and its follow-on, supporting publication, *Concept for Future Joint Operations: Expanding Joint Vision 2010*,⁸⁸ repeatedly and pervasively use the

terms "flexibility" and "adaptability." This reflects the clear realization that flexibility is crucial to successfully negotiating the future global security environment. Flexibility as a doctrinal warfighting principle would help foster open-minded, less judgmental Service cultures, helping to further overcome destructive Service parochialisms while protecting Service identities. Jointness would be more clearly seen as the key enabler for flexible warfighting, encouraging deeper trust and understanding among all the Services.

When considering flexibility's proposed doctrinal definition as a principle of war, one can see the concept has broad utility at all three levels of conceivable future conflict (as well as MOOTW operations). At the tactical, operational, and even strategic levels, a prime example is the requirement to flexibly task organize for any conceivable contingency. United States Joint doctrine addressing the formation of joint and combined contingency forces is now hailed for its extreme flexibility and demonstrated effectiveness. Recent emphasis on "adaptive joint force packaging" is a good example of efforts this decade to recapture the art of flexibly tailoring forces for any given contingency.⁸⁹ The Services are similarly following suit within their roles as force providers. The U.S. Air Force's evolving and robust expeditionary aerospace force (EAF) concept and the U.S. Army's Force XXI emphasis on "tailorability and modularity" reflect this emphasis on flexible

task organizing.⁹⁰ These efforts would be further and directly reinforced by adopting flexibility as an American principle of war.

Moreover, when considering *preparations* for war as part of the larger context of warfighting, flexibility's value increases. Tactically and operationally, in battle and campaign planning, a flexible disposition demands that all reasonable courses of action, branches, and sequels be fully explored and developed in the time available. Flexible responses are often born of flexible planning. Further, in tomorrow's unfolding environment where asymmetric and other non-traditional threats will become more prevalent, open-minded, non-judgmental and critical thinking skills--at all ranks and levels of war--will become the tools to eliminate dangerous blind spots and develop effective solutions. That's flexibility.

Flexible preparations for war can also take on a broader, more strategic shape in the form of force modernization and experimentation efforts. The recent creation of joint warfighting capability assessment (JWCA) teams as "innovation engines" within the Joint Requirements Oversight Council (JROC) structure represents a flexible approach to solving Service interoperability and modernization challenges.⁹¹ Similarly, the military's emerging emphasis on aggressive experimentation and simulation directly supports the principle of flexibility. Conversely, adopting flexibility as a principle of war would send a powerful message and act as a unifying force for such efforts. Focused, innovative problem-solving approaches and creative

experimentation would be routinely rewarded at all levels, from the laboratory, to the Service and Joint training/warfighting centers, to Service, Joint, and congressional resource allocation activities, fostering even greater releases of creative energies and yielding larger rewards.

Finally, as discussed earlier, future forms of warfare can take many paths, and much uncertainty lies ahead. Strategists will continue to evaluate the principles of war in this evolving security environment and judge their relevance. To the degree new forms of warfare are additive to existing forms, the principles will retain some level of validity. To the degree new forms of warfare *replace* old forms, the principles' future validity must be re-tested. Either way, one thing is certain: as we move into the 21st Century, the need for flexibility as an adopted principle of war will only grow.

SUMMARY AND RECOMMENDATIONS

This study makes the case for flexibility as a principle of war. The study neither challenges nor specifically indorses the other nine principles, which have existed, unchanged, for nearly 50 years. That wasn't this paper's focus. Nor does this study challenge, in a more general sense, the longstanding practice of codifying a list of "pseudo-prescriptive" terms designed to capture our most essential and enduring warfighting principles. Rather, this author accepts that highly institutionalized

framework while arguing the concept of flexibility is largely missing from it. Over the years this omission has been ameliorated somewhat by the body of doctrine, writings, and teachings which implicitly suggests a "disposition of flexibility." However, that suggestion or message to the warfighter is inconsistent at best. Given the evolving, highly complex, and uncertain future global security environment, such an ambiguity could prove disastrous. There will simply be no room for rigid, non-adaptive dispositions and behaviors. To preclude any further ambiguity in the message, therefore, the principle of flexibility must be more clearly and forcefully espoused by senior U.S. military leadership.

The right end-state is formal codification of flexibility as a principle of war in the appropriate U.S. Joint and Service basic doctrinal documents. To best ensure this change occurs in an orderly, hierarchical fashion, capstone doctrinal document Joint Pub 1, *Joint Warfare of the Armed Forces of the United States*, and keystone doctrinal document Joint Pub 3-0, *Doctrine for Joint Operations*, should be modified first. These are the two overarching Joint warfighting doctrinal documents addressing the principles of war. This change must be accompanied by aggressive oversight and coordination by the Director, J-7, Joint Staff, working with all other Joint and Service doctrinal organizations, so that similar changes in appropriate Joint and Service doctrine documents follow.

To arrive at this end-state, lively and broad debate must first take place within the military community. This author encourages such debate yet cautions that unlike the often unconstrained American deliberative process, successful warfighting strategies must sometimes be developed under "tighter" schedules. Put simply, we need to get on with this debate, because the time to fully embrace flexibility as a principle of war is now. Responsibility for stimulating that dialogue rests with senior military leaders and strategists, with strong backing from the literary community. Ultimately, through this process, the Director, J-7, Joint Staff, would receive the necessary guidance from the Chairman (hopefully with full consensus and support of the Joint/Service Chiefs) to initiate the formal codification procedure previously described.

These recommendations no doubt carry heavy administrative challenges, conjuring an image of re-chiseling age-old stone tablets of immutable truth (or, in military speak, "re-writing a lot of regs"). But the administrative cost of change pales in comparison to the long-term benefits. Doctrine must remain both nimble and responsive to warfighting needs. One paradox in implementing this change is that it will take an attitude of flexibility to culturally adopt and instill one. Yet that is the challenge of senior leadership--to know and appreciate what's truly *right* for the organization, and then, with vision and determination, be the catalyst for positive change.

CONCLUSION

The difference between the *almost-right* word & the *right* word is really a large matter--it's the difference between the lightning bug and the lightning.⁹²

— Mark Twain

This paper has focused on one word. More specifically, this paper has focused on the *absence* of the word--and the warfighting principle of--flexibility. The purpose was to underscore the seemingly subtle, yet significant and positive influence this single word would have if codified as a principle of war. Some would argue we live in a world of sound bites and aphorisms, and the modern-day principles of war are no more than a dangerous manifestation of that, not warranting serious attention. Yet to ignore this 78-year, institutionalized practice is to ignore the principles' very real influence on the fabrics of US military Joint and Service cultures. Senior leaders must understand and appreciate that this simple list called the "principles of war" carries transcendent powers to affect behavior and thought in manifold ways. Further, we must never take lightly a list that speaks directly to this profession's reason for being.

US military doctrine recently received a much-needed shot in the arm, sparked by the 1986 Goldwater-Nichols Act, resulting in a renewed emphasis on Joint and Service doctrinal publications. As a result, warfighters are paying more attention to doctrine. At the same time, titanic and revolutionary changes in the global security environment are creating uncertainties on a grand scale.

"Conflict" will take on new forms, yet traditional forms will remain. Warfighting resources will remain at a premium, and strategies to fight and win at all levels of conflict must continue to evolve in highly adaptive, innovative, and creative ways.

This all combines to underscore the imperative to adopt flexibility as a principle of war in basic doctrine. Through doctrine, a deepened cultural appreciation for flexibility would be instilled, as would the capability of warfighting units to effectively adapt and respond to the prevalent change and uncertainty of the times. Ultimately, flexibility becomes the synthesizing force to prioritize the application of all of the principles of war to meet each unique challenge, across the wide range of military operations.

As Mark Twain suggested, words do make a difference. Pronouncing flexibility as an American principle of war in Joint and Service doctrine would drive a subtle yet profoundly important heading change as the US military confronts its growing responsibilities into the next millennium.

WORD COUNT: 9,452

APPENDIX 1

The American Principles of War

Below are the American Principles of War as listed and described in Joint Pub 3-0, *Doctrine for Joint Operations*.⁹³

OBJECTIVE:

- The purpose of the objective is to direct every military operation toward a clearly defined, decisive, and attainable objective.
- The objective of combat operations is the destruction of the enemy armed forces' capabilities and will to fight. The objective of an operation other than war might be more difficult to define; nonetheless, it too must be clear from the beginning. Objectives must directly, quickly, and economically contribute to the purpose of the operation. Each operation must contribute to strategic objectives. Avoid actions that do not contribute directly to achieving the objective.

OFFENSIVE:

- The purpose of offensive action is to seize, retain, and exploit the initiative.
- Offensive action is the most effective and decisive way to attain a clearly defined objective. Offensive operations are the means by which a military force seizes and holds the initiative while maintaining freedom of action and achieving decisive results. The importance of offensive action is fundamentally true across all levels of war.

MASS:

- The purpose of mass is to concentrate the effects of combat power at the place and time to achieve decisive results.
- To achieve mass is to synchronize appropriate joint force capabilities where they will have decisive effect in a short period of time. Mass must often be sustained to have the desired effect. Massing effects, rather than concentrating forces, can enable even numerically inferior forces to achieve decisive results and minimize human losses and waste of resources.

ECONOMY OF FORCE:

- The purpose of economy of force is to allocate minimum essential combat power to secondary efforts.
- Economy of force is the judicious employment and distribution of forces. It is the measured allocation of available combat power to such tasks as limited attacks, defense, delays, deception, or even retrograde operations in order to achieve mass elsewhere at the decisive point and time.

MANEUVER:

- The purpose of maneuver is to place the enemy in a position of disadvantage through the flexible application of combat power.
- Maneuver is the movement of forces in relation to the enemy to secure or retain positional advantage, usually in order to deliver--or threaten delivery of--the direct and indirect fires of the maneuvering force. Effective maneuver keeps the enemy off balance and thus also protects the friendly force. It contributes materially in exploiting successes, preserving freedom of action, and reducing vulnerability by continually posing new problems for the enemy.

UNITY OF COMMAND:

- The purpose of unity of command is to ensure unity of effort under one responsible commander for every objective.
- Unity of command means that all forces operate under a single commander with the requisite authority to direct all forces employed in pursuit of a common purpose. Unity of effort, however, requires coordination and cooperation among all forces toward a commonly recognized objective, although they are not necessarily part of the same command structure. In multinational and interagency operations, unity of command may not be possible, but the requirement for unity of effort becomes paramount. Unity of effort--coordination through cooperation and common interests--is an essential complement to unity of command.

SECURITY:

- The purpose of security is to never permit the enemy to acquire unexpected advantage.

- Security enhances freedom of action by reducing friendly vulnerability to hostile acts, influence, or surprise. Security results from the measures taken by commanders to protect their forces. Staff planning and an understanding of enemy strategy, tactics, and doctrine will enhance security. Risk is inherent in military operations. Application of this principle includes prudent risk management, not undue caution. Protecting the force increases friendly combat power and preserves freedom of action.

SURPRISE:

- The purpose of surprise is to strike the enemy at a time or place or in a manner for which it is unprepared.
- Surprise can help the commander shift the balance of combat power and thus achieve success well out of proportion to the effort expended. Factors contributing to surprise include speed in decisionmaking, information sharing, and force movement; effective intelligence; deception; application of unexpected combat power; OPSEC; and variations in tactics and methods of operation.

SIMPLICITY:

- The purpose of simplicity is to prepare clear, uncomplicated plans and concise orders to ensure thorough understanding.
- Simplicity contributes to successful operations. Simple plans and clear, concise orders minimize misunderstanding and confusion. When other factors are equal, the simplest plan is preferable. Simplicity in plans allows better understanding and execution planning at all echelons. Simplicity and clarity of expression greatly facilitate mission execution in the stress, fatigue, and other complexities of modern combat and are especially critical to success in combined operations.

APPENDIX 2

A Discussion of Robert Leonhard's Book, "The Principles of War for the Information Age"

Authors Johnsen, et al, made the following statement in their 1995 SSI study on the principles of war: "In order to revalidate continually the principles of war . . . it is necessary to occasionally consider truly radical alternatives . . ."94 Robert Leonhard's provocative new work titled *The Principles of War for the Information Age*95 is one such alternative deserving close review.

Leonhard, seemingly wearied with what he suggests is a bankrupt intellectual framework of war principles, wipes the slate clean, offering three new "laws of war" and seven new "principles of war for the information age." The book is intriguing, and as Major General Robert Scales states in his foreword, "Robert Leonhard has done all of us studying future warfare a great service by examining this issue in detail. His arguments . . . confront long-accepted convictions. He challenges us to strip away preconceptions and to reexamine the principles of war in a new context."96

Leonhard's laws and principles represent an excellent list of *arguments or categories of thinking* (vice prescriptions), as he describes them. This represents a different lens through which principles of war can be viewed. Leonhard would likely add that this lens is not only *different*, but it is the *right* lens to use

now and in the evolving Information Age. He considers the current principles of war a prescriptive and rearward-looking American list; principles, he argues, which have lost any applicability they may have once had.

This author is not so sure, and this raises the very pragmatic and important issue of *utility*. By virtue of the 78-year intellectual framework created by the codification of the American principles, strong--and very useful--organizational and cultural norms have been established. For example, beyond their obvious and direct tactical applications, the principles have proven extremely useful as a retrospective tool in academic and literary settings as a basis for analyzing wars, campaigns and battles.⁹⁷ As an operational tool for the here-and-now, the principles represent an excellent framework for evaluating courses of action during campaign planning.⁹⁸ These are but two examples. Beyond these instilled norms, the current list has likely survived this long because it seems to target the *intellectual center* of the military officer population, giving it widest application. There is an obvious tradeoff here, but this author believes it strikes a good balance. The principles aren't so prescriptive and rudimentary as to insult (e.g., "kill or be killed"), yet they aren't in the "ether-zone" of thought reserved for only the very brightest and most insightful of military thinkers.

This author is concerned Leonhard's work misses the "utility" mark on both counts above (i.e., as a useful organizational norm, and on the targeted intellectual level) and should not be adopted by the US Armed Forces--at least not without further study. First, his laws and principles are so completely descriptive (partly because he focuses on the *duality* of each of the principles), that they seem to create, without an attendant deeper analysis, an almost paralyzing sense of neutrality--everything gets "cancelled out." Leonhard would likely counter that this is a misinterpretation of his message--that the principles must be presented as intellectual arguments, each with two sides, to be truly valid. He's right--principles *should* be discussed as arguments. But a certain "prescriptiveness," which the current set of principles carries, has proven over the years an extremely useful guide in the heat of war planning--and battle--when the human mind reaches for aids to organize, focus, and positively channel thoughts. Leonhard's laws and principles, on the other hand, are significantly more esoteric and abstract than the current list--to the degree they would likely lose the useful, wide applicability and demonstrated acceptance of the current set of principles. In a sense, the principle of simplicity (or clarity, as this author prefers) is violated. This is not to say Leonhard's work is without value--quite the contrary. He brings fresh thought to an admittedly stale discourse in the literature. His emphasis on the humanness

and the duality of warfare (though not original) and his notion that principles should be treated as *arguments* are particularly insightful. However, when considering his proposal for formal codification and wide adoption by the U.S. Armed Forces, its broad utility is uncertain.

This gets back to this author's pragmatic belief that an evolutionary--not a revolutionary--approach to modifying the principles is probably in order. By incorporating flexibility within the current framework, the other nine principles actually become more like Leonhard's "arguments," because a flexible disposition, by definition, does not permit any one principle to become prescriptive dogma; each principle must be weighed against the situation at hand. Further, such an approach preserves a set of principles that have demonstrated their usefulness throughout the wide spectrum of Industrial Age warfare. As General Scales tactfully reminds the reader in the foreword to Leonhard's book, "much about warfare will remain true to its past."⁹⁹ But probably most importantly, by preserving the current, traditional framework of principles, the result will be minimal stress on the organizational cultures (read, minimum unintended consequences) while yielding maximum benefit.

Leonhard certainly may be on to something, but his proposed laws and principles, for now, seem best left with an intellectual sub-set inside an otherwise broad, multi-constituent population that relies on the adopted principles of war. Incorporating

flexibility within the *current* framework of principles can be viewed as a more "manageable" yet still fundamentally important heading change as the US military moves into the 21st century.

ENDNOTES

¹ From *Fables*, Book 1, Fable 22, 1668. See: Jean de La Fontaine, *The Fables of La Fontaine*, trans. Marianne Moore (New York: Viking Press, 1954), 33.

² Some doctrinal circles, particularly within the U.S. Army, have considered adopting the term "principles of operations" as a way to more fully capture the spectrum of military activities. This terminology debate is not crucial to this paper's purposes, for it will be shown the principle of flexibility would apply equally to the activities represented by either term.

³ Bernard Brodie, for example, discusses Clausewitz's "pronounced disinclination to provide formulas or axioms as guides to actions." Brodie continues, "[Clausewitz] is often intent upon demonstrating the pitfalls of such axioms . . . [and], on the contrary, invites his readers to ruminate with him on the complex nature of war, where any rule that admits of no exceptions is usually too obvious to be worth much discourse." See: Carl von Clausewitz, *On War*, Michael Howard and Peter Paret, eds. (Princeton, NJ: Princeton University Press, 1976), 57. Russell F. Weigley, in his famous treatise, *The American Way of War*, states, "The principles of war tended during the 1920s, and still do today, to receive inordinate attention. Amid the harsh pressures of war and combat it is surely helpful to have at hand such straightforward guides to conduct, but the principles are so straightforwardly simple and general that they can lead astray almost as easily as they can assist." See Russell F. Weigley, *The American Way of War* (Bloomington, IA: Indiana University Press, 1973), 214. As will be discussed in this paper, culturally instilling the notion of flexibility within the current framework would likely serve to obviate the very dangers Brodie and Weigley, among others, are referring to.

⁴ This presumes the framework created by the American adopted "principles of war" is not fundamentally or radically altered in such a manner that the term "flexibility" loses parallel structure. If that were to happen, this author would assert the "essence" of flexibility must remain an integral concept of that new structure or framework.

⁵ Several of these arguments will be reviewed. Regardless, as the spectrum of conceivable forms of warfare expands, the adopted principles of war must be tested for their universality. This study is a product of that belief.

⁶ Though beyond the scope of this paper, this author believes there may exist a second, significant conceptual gap in the framework of adopted American principles--namely, the concept, or

principle, of "sustainment" or "logistics" (similar to the principle of "sustainability" recently adopted by the United Kingdom in place of the previous principle of "administration"). This relates to the widely held notion that "resourcing" or sustaining the activities of war or conflict will always prove an inherent challenge that must be effectively addressed. The author has not thoroughly researched this subject nor conceptually and rigorously tested "sustainment" against the understood requirement that, to be a principle, it must be a broad, enduring "truth" (or "basis for argument," as will be discussed), applicable across the range of military activities. It certainly warrants additional research. For a discussion of sustainment as an adopted principle of war, see: British Ministry of Defence, British Defence Doctrine, Joint Warfare Publication (JWP) 0-01 (London: Caldwell Prince, Ltd., 1997), A.7-A.8. Also see: Stephanie A. Rast, The Tenth Principle, Study Project (Carlisle Barracks, PA: U.S. Army War College, March 1989), wherein the author argues for the principle of sustainment. Finally, see: Barry R. Schneider and Lawrence E. Grinter, eds., Battlefield of the Future: 21st Century Warfare Issues (Maxwell AFB, AL: Air University Press, 1998), 32-36, in which Dr. Schneider argues for the principle of "logistics" (one of four proposed new principles of war, of which the other three don't qualify in the author's view). In any case, by first adopting flexibility as a principle of war, the conditions are best set for a rigorous and critical debate over sustainment, or any other concept considered a potential "principle" of war.

⁷ Marshall L. Falwell, "The Principles of War and the Solution of Military Problems," Military Review (May 1955): 62.

⁸ Alger cites over 100 "principles" (that term is used loosely here) that have been proposed or embraced by various strategists, militaries, and nations. See: John I. Alger, The Quest for Victory: The History of the Principles of War (Westport, CT: Greenwood Press, 1982).

⁹ Russell W. Glenn, "No More Principles of War?" Parameters (Spring 1998): 48-66. Glenn's title is misleading, because it's not the focus of his article. His point, rather, is that (at the writing of the article) the draft of the U.S. Army's basic doctrine manual, U.S. Army Field Manual (FM) 100-5, did not reflect any changes to the longstanding set of American adopted principles nor attempt to synthesize it with the recently developed list of "principles of military operations other than war." In other words, Glenn believes the Army may be missing an opportunity to make appropriate, possibly substantive changes to the adopted set of principles. He does not suggest, as his title

implies, that the principles of war be abolished in favor of no list.

¹⁰ The author uses the term "conflict" interchangeably with the term "war." This is a more traditional use of the word, versus its use by some Services to represent military activities falling somewhere between "war" and "peace."

¹¹ Notably, Joint Pub 1-02, *DoD Dictionary of Military and Associated Terms*, which is over 600 pages long and defines thousands of terms, does not define the word "principle" nor the term "principles of war." Joint Pub 3-0, *Doctrine for Joint Operations*, does state, "The principles of war guide warfighting at the strategic, operational, and tactical levels. They are the enduring bedrock of US military doctrine." See: U.S. Joint Staff, Doctrine for Joint Operations, Joint Publication 3-0 (Washington, D.C.: U.S. Government Printing Office, 1 February 1995), A-1.

¹² Glenn, 48. Glenn is quoting from an earlier work written by Alger at the U.S. Army Command and General Staff College, Fort Leavenworth, Kansas.

¹³ Donn A. Starry, "The Principles of War," Military Review (September 1981): 5.

¹⁴ Ibid.

¹⁵ Some would argue Clausewitz, or Jomini, or both, might object to the notion of codifying principles of war in a deterministic list such as this. Others would argue these authors would allow the practice, provided certain caveats accompany the list. Regardless, there is no denying the list's creation was heavily influenced by J.F.C. Fuller's thoughts on the subject, including his interpretation of the writings of these two strategists. Much of Fuller's matured thinking on the subject was later summarized in his 1926 work, *The Foundations of the Science of War* (see bibliography).

¹⁶ According to Glenn, the list disappeared after 1928 but re-emerged as a list of seven "general principles" for use during the "conduct of war" in the U.S. Army's 1939 FM 100-5, *Tentative Field Service Regulations, Operations*. There was no list of principles in the 1941 FM 100-5 (the reader was instead presented with several "doctrines of combat": ultimate objective, simple and direct plans and methods, unity of effort, offensive action, concentration of superior forces, surprise, and security. Then, in the 1949 FM 100-5, the currently adopted list of principles

emerged. Interestingly, only "maneuver" and "unity of command" stand in the place of the original "movement" and "cooperation," respectively, found in the 1921 version. See: Glenn, 50-52. Lastly, Alger notes that "as the [US] turned its attention from the humiliating lessons learned in Southeast Asia, it briefly dropped the 'principles' from official doctrinal sources. But the 'principles' hastily returned to US doctrine in 1978 after just two years in limbo." See: Alger, 169.

¹⁷ Primary source: National Defense University, The Joint Officers Staff Guide 1997, Armed Forces Staff College Publication 1 (Washington DC: U.S. Government Printing Office, 1997), 1-4. The author modified the AFSC Pub 1 table to more correctly reflect the Great Britain and Australian principle of "Economy of Effort" (the AFSC Pub 1 Table lists it as "Economy of Force"). Further, Great Britain's previous principle of "administration" was replaced by the principle of "sustainability" (neither was listed in AFSC Pub 1). See: JWP 0-01, A.8. See also: Doctrine Branch, Headquarters Training Command (Australian Army), The Fundamentals of Land Warfare, (Georges Heights NSW, Australia: Ventura Publisher, 1993), 25. This publication cites *Australian Defense Force Publication (AFDP) 1, Doctrine*, as its source for the Australian principles of war.

¹⁸ Australian military doctrine lists the principle of "Administration" instead of this principle.

¹⁹ Alger, ix.

²⁰ As General Starry rhetorically suggests, "Whether this reflects the ultimate wisdom of their drafter, intellectual bankruptcy or some other circumstance would be hard to say." See Starry, 5.

²¹ These are but three of a plethora of contemporary books and articles analyzing and recommending various changes to the existing principles of war, reflecting the longstanding yet healthy debate in the literature. Other representative works include: Barry R. Schneider's essay, "Principles of War for the Battlefield of the Future," found in the book, *Battlefield of the Future: 21st Century Warfare Issues*, edited by Barry R. Schneider and Lawrence E. Grinter (previously cited), which takes a contemporary view of the nine principles and recommends adding four more: Simultaneity and Depth of Attack, Logistics, Information Dominance, and Precision Targeting; Edward Mann, "One Target, One Bomb: Is the Principle of Mass Dead?" Military Review (September 1993) 33-41; Paul Katz, "The Additional Principle of War," Military Review (June 1987): 36-45 (recommends adding

"behavior of the individual soldier" as a principle); and Thomas B. Vaughn, "Morale: The 10th Principle of War?", Military Review (May 1983): 23-39.

²² Official US military definitions of "strategic," "operational" and "tactical" levels of war can be found in Joint Pub 1-02.

²³ The authors state, "While the principles have been thoroughly scrutinized at the tactical and operational levels of warfare, the study of their applicability at the strategic level has been less exhaustive." See: William T. Johnsen, et al, The Principles of War in the 21st Century: Strategic Considerations (U.S. Army War College, Carlisle Barracks, PA: Strategic Studies Institute), 1. That being said, JWP 0-01, *British Defence Doctrine*, in its overview of the (very similar) British principles of war, states, "[The principles of war] are especially relevant at the military strategic level, where they establish a number of criteria against which courses of action affecting the national interest, including defence investment decisions and the planning of a campaign, may be tested." JWP 0-01 goes on to say, "The principles also have a direct application at lower levels, providing guides to action." See: JWP 0-01, A.1.

²⁴ See: Johnsen, et al, 2. As support, the authors cite Clausewitz's assertion that "war at the strategic level is an intellectual process." The applicable passage on the page of the English translation they cite actually attributes to Clausewitz his following statement: "We can already guess how great a role intellectual powers play in the higher forms of military genius." See: Carl von Clausewitz, On War, ed. and trans. Michael Howard and Peter Paret (Princeton, NJ: Princeton University Press, 1976), 101. The author feels compelled to make the following fairly obvious assertion that war is an intellectual process at all levels. That being said, the point made by the SSI authors is well taken.

²⁵ On the other hand, they did not suggest that the current list of nine principles is immutable, written in stone. In an appendix the authors described their conscious decision to take a "minimalist" approach (similar to this author's) and recommend incremental changes within the existing framework. They did, however, describe in an appendix the opposite, or "maximalist" approach, whereby "truly radical alternatives" can and should be considered from time to time, "even if only to reject them after thoughtful consideration." See: Johnsen, et al, 35.

²⁶ US Joint capstone and keystone doctrine does not specifically address differences in applicability at the various levels of war; i.e., Joint Pub 3-0 states "the principles of war guide warfighting at the strategic, operational and tactical levels." See Joint Pub 3-0, A-1.

²⁷ Though not central to this paper, this author believes two of SSI's six modified "strategic" principles--unity of effort and clarity--are more applicable and appropriate terms than unity of command and simplicity, respectively, at all levels of war. Unity of command, for example, may be necessary to ensure unity of effort, but in all cases unity of effort is essential--not necessarily unity of command. This may increasingly be the case in complex, interagency and multinational operations (the Joint Pub 3-0 definition even speaks to this). Similarly, simplicity may be the strategy to help ensure clarity, but it's clarity--not simplicity--that is essential in all cases. The increasing and unavoidable complexity of future operations may obviate any attempt to satisfy the principle of "simplicity" when considering the traditional meaning of the word (and this author believes considering a word's traditional meaning is a requisite consideration to ensure a principle of war is effectively communicated). In fact, attempts to "ensure simplicity" would be counterproductive in some situations.

²⁸ Both lists are codified in Joint doctrine (Joint Pub 3-0 lists both sets of principles, and Joint Pub 3-07, *Joint Doctrine for Military Operations Other Than War*, lists the principles of MOOTW); however, Glenn was addressing the issue at the U.S. Army doctrinal level, primarily as relating to FM 100-5. See: Joint Pub 3-0, V-2 through V-4 and A-1 through A-3; U.S. Joint Staff, *Joint Doctrine for Military Operations Other Than War*, Joint Publication 3-07 (Washington, D.C.: U.S. Government Printing Office, 16 June 1995), II-1 to II-8. The currently adopted principles of MOOTW are also listed in other Service doctrinal manuals, for example, in FM 100-1, *The Army*, and FM 100-23, *Peace Operations*.

²⁹ This recommendation curiously appears to ignore the now established hierarchical authority of Joint capstone/keystone publications, implying it would be acceptable to make such a change to principles of war in basic Service doctrine without an originating modification to Joint capstone/keystone doctrine. This is more an administrative issue that should not detract from the otherwise valid points Glenn surfaces.

³⁰ Robert R. Leonhard, The Principles of War for the Information Age (Novato, CA: Presidio Press, 1998).

³¹ Ibid, xii. Leonhard specifically uses the term "conflict" in order to, as he says, "widen the scope of the book beyond a merely military context," since he "[perceives] that many of the points [discussed] . . . are applicable to all aspects of human conflict: business, politics, sports, social conflict . . . in some sense, even in love and romance--a human sport built around the most sensual conflict of all."

³² Ibid, 244.

³³ See: Leonhard, 245. The author supports this approach as a more reasoned manner in which to consider and discuss principles of warfighting, vice accepting and adhering to principles as prescriptions. However, the author also views the current nine principles as a reasonable list from which to base such discussions. Leonhard's complete discarding of the existing nine principles, as will be discussed, likely creates unintended and untenable consequences and can be likened to "tossing the baby with the bathwater."

³⁴ Ibid, 252.

³⁵ Joint Pub 1-02 defines "doctrine" as: "fundamental principles by which military forces or elements thereof guide their actions in support of national objectives. It is authoritative but requires judgment in application." See: U.S. Joint Staff, DoD Dictionary of Military and Associated Terms, Joint Publication 1-02, as amended through 10 February 1999 (Washington, D.C.: U.S. Government Printing Office), 140.

³⁶ Department of the Army, Headquarters, U.S. Army Training and Doctrine Command, Force XXI Operations: A Concept for the Evolution of Full-Dimensional Operations for the Strategic Army of the Early Twenty-First Century, TRADOC Pam 525-5 (Fort Monroe, VA: U.S. Training and Doctrine Command, 1 August 1994), 1-3.

³⁷ Goldwater-Nichols Act of 1986, 10 U.S. Code, sec. 153 (1998).

³⁸ David A. Sawyer, "The Joint Doctrine Development System," Joint Force Quarterly, (Winter 1996-97): 37.

³⁹ This is not to imply Joint doctrine was non-existent prior to the GNA. Joint operations are as old as our country, and hence, attempts to create effective Joint doctrine have been longstanding. The first formal attempt appears to have been via the Army-Navy Board formed in 1903, which in its first 17 years

could only produce one manual, "Joint Army and Navy Action in Coast Defense." From this meager beginning, and throughout the years prior to the GNA, formal Joint doctrine has progressed variously, often under the paralyzing influence of Service interests and parochialisms. See: William C. Smith, The United States Needs Joint Warfighting Doctrine, Study Project (Carlisle Barracks, PA: U.S. Army War College, 5 April 1988), 4-14.

⁴⁰ Well over 100 Joint doctrinal publications now exist where none previously did. See: U.S. Joint Staff, Compendium of Joint Doctrine Publications, Joint Publication 1-01.1 (Washington, D.C.: U.S. Government Printing Office, 25 April 1995), A-1.

⁴¹ In the early 1990s there were persistent concerns with the level of understanding of Joint doctrine within the US armed forces. See: John Boatman, "Spreading the Word," Janes Defence Weekly 10 December 1994): 19. There was also significant Service concern with General Shalikashvili's direction, in the aftermath of the 1994 friendly Blackhawk helicopter shootdown in Iraq, to revise the prefaces to all Joint pubs to state, "The guidance in this publication is *authoritative*; as such, this doctrine will be followed except when, in the judgment of the commander, *exceptional circumstances dictate otherwise*" (italics added). The italicized caveat seems to have sufficiently subdued Service concerns, permitting acceptance by the Service communities. See: John Cushman, "In Joint Doctrine: What are Exceptional Circumstances?" United States Naval Institute Proceedings, (April 1995): 46-50. Also, consider the following passage in 1996: "The Joint doctrine development process is often maligned as slow and unresponsive to user needs. Unfortunately, there is some validity to that charge. In the haste to get Joint doctrine to the field, the initial publications were little more than reworked Service doctrine between purple covers. They were created out of need, but many were redundant or should have been published as tactics, techniques, and procedures (TTP)." See Joseph J. Redden, "Joint Doctrine: The Way Ahead," Joint Force Quarterly (Winter 1996-97): 10. Lastly, two members of the U.S. Army War College Strategic Studies Institute posit that "difficulties in the development and implementation of sound Joint doctrine have been caused, in large measure, by the systemic gap in the existing strategic planning process." See: Douglas C. Lovelace, Jr. and Thomas-Durell Young, Strategic Plans, Joint Doctrine and Antipodean Insights (U.S. Army War College, Carlisle Barracks, PA: Strategic Studies Institute), 1.

⁴² Chairmen Powell, Shalikashvili, and now Shelton have all recognized their role to shepherd this monumental change through the inertia of past doctrinal practices. Creation of the Joint Warfighting Center and USACOM's increased roles in Joint training

and Joint force integration reflect this focus. Results are beginning to show. Lieutenant General Joseph Redden, previous commander of the Joint Warfighting Center, describes [General Shalikashvili's] mandate "that the publications should be more readable and distributed more quickly." As a result, "the process of developing doctrinal pubs was reduced from 48 to 23 months . . . writing groups comprised of representatives of the Services, CINCs, and Joint Staff directorates . . . draft a document that is as *purple* as possible, reducing coordination time . . . The new publication format has been widely accepted . . . distribution is made to the field and fleet based on lists developed by the Services and CINCs." See: Redden, 10.

⁴³ Examples of this are found in the introductions or prefaces to the following basic Service doctrine documents: U.S. Army Field Manual 100-1 (FM 100-1), *The Army*, June, 1994; Air Force Doctrine Document 1 (AFDD-1) *Air Force Basic Doctrine*, September, 1997; Naval Doctrine Publication 1 (NDP-1), *Naval Warfare*, March, 1994; and Marine Corps Doctrinal Publication 1 (MCDP-1), *Warfighting*, June, 1997.

⁴⁴ This is solely the author's opinion, which tends to be a middle-ground position. Opinion on this matter, between and among officers, Services, and other groups, varies widely. Some believe the Joint doctrine system is too constraining for the Services, stifling full development of Service-born concepts, while others believe the Service doctrines need to further conform to the Joint hierarchy.

⁴⁵ Sawyer, 39.

⁴⁶ There are currently only two Joint doctrine documents defined as "capstone" doctrine, which is the highest level of basic, overarching Joint doctrine. They are Joint Pub 1, *Joint Warfare of the Armed Forces*, and Joint Pub 0-2, *Unified Action Armed Forces*. Joint "keystone" doctrine documents are the next level of basic, overarching documents, categorized by functional field. There are currently six such documents (Joint Pub 1-0, 2-0, etc.) for each of the six functional fields. The Services do not use the terms "capstone" and "keystone" in the same formalized and standardized manner; however, some make use of the terms. To avoid any confusion, the term "basic" doctrine will be used when describing any overarching Joint or Service doctrine, and the terms "capstone" and "keystone" will be associated only with overarching Joint doctrine.

⁴⁷ U.S. Joint Staff, Joint Warfare of the Armed Forces of the United States, Joint Publication 1 (Washington, D.C.: U.S. Government Printing Office, 10 January 1995), III-1.

⁴⁸ Joint Pub 3-0, II-1 and A-1 through A-3.

⁴⁹ Ibid, A-1.

⁵⁰ Namely, FM 100-1, *The Army*, AFDD-1, *Air Force Basic Doctrine*, and NDP-1, *Naval Warfare*. Additionally, the principles of war are variously discussed and cascaded throughout other Joint and Service doctrine documents; for example, in Joint Pub 3-05, *Doctrine for Joint Special Operations*, and in the Army's foundational FM 100-5, *Operations*.

⁵¹ Considering the DTLOMS environments is helpful because it represents the U.S. Army's attempt to cover all organizational domains during the requirements determination process. By extension, the DTLOMS review process is an excellent way to capture the totality of organizational activities. Hence, the greater the influence on the DTLOMS environments, the greater the influence on the organizational culture. See: Department of the Army, Headquarters, U.S. Army Training and Doctrine Command, Requirements Determination, TRADOC Pam 71-9 (Fort Monroe, VA: U.S. Training and Doctrine Command, 1 August 1999), 5.

⁵² Mao Tse-tung, Selected Military Writings of Mao Tse-tung, trans. Foreign Languages Press (Peking: Foreign Languages Press, 1963), 78. Essay written in December 1936.

⁵³ More precisely, it begins with a collective and consensual shift in viewpoint by the organization's senior leadership. Those leaders, in turn, agree to change basic doctrine, as depicted in Figure 1.

⁵⁴ The American Heritage Dictionary (Boston, MA: Houghton Mifflin Company, 1991), 513.

⁵⁵ Sourced from several popular English dictionaries.

⁵⁶ Provided, however, that "open-mindedness" is not permitted to create, or evolve into, a state of indecisiveness or lack of direction. The author confronted this concern by including the following carefully worded "balancing" phrases in the definition: "while constantly focusing on the objective," as well as, "nor lose orientation," and finally, "yet never lose focus on the commander's intent."

⁵⁷ As previously discussed, the US military community currently subscribes to two independent lists of principles--one addressing principles of "war," and one addressing principles of "operations other than war." Also as discussed, some have suggested merging the two lists. The outcome of that debate is not important to this paper. However, this author believes the concept of flexibility is universally applicable across the wide spectrum of military operations and should therefore be incorporated in any list or lists of fundamental principles of "military operations."

⁵⁸ The Holy Bible (The Oxford Self-Pronouncing Bible, Authorized King James Version), (London: Oxford University Press, 1967), Book of Job, Chapter 6, Verse 25 (p. 576).

⁵⁹ See: Johnsen, et al, 3. Most analyses of the American principles of war place the principle of objective on a plane above all other principles. Even so, there may be times whereby *the objective itself* might need--or is--changing, and only the flexible leader is perceptive enough to identify the need or the change.

⁶⁰ Save, maybe, for the somewhat ethereal or abstract notions of offensive spirit and initiative, or determination, or moral force. Those, however, do not provide the intellectually broad, tangible, and objective coverage of warfare that flexibility provides. Regardless, this debate need not be resolved.

⁶¹ Sun Tzu, The Art of War, trans. Samuel B. Griffith (London: Oxford University Press, 1963), 10, 43.

⁶² Clausewitz, 11-12 (essay by Peter Paret).

⁶³ T. Owen Jacobs, A Guide to the Strategic Leader Development Inventory (Second Revision) (Carlisle Barracks, PA: U.S. Army War College, n.d.), 7.

⁶⁴ Leonhard, 274.

⁶⁵ Though, as was shown earlier, other major, industrialized militaries have adopted the principle of flexibility; namely, Great Britain and Australia. There are others as well.

⁶⁶ Leonhard, 274-275. To be completely fair, Leonhard's second point (regarding the conflict between principles) was as much a complaint about the current structure of the nine principles as it was a compelling argument for flexibility. However, Leonhard would also be quick to support Clausewitz's, as well as his own

notion (see Chapter 14 of his book) of the duality of warfare, and that "nothing is ultimately unopposed." More succinctly, there is nothing fundamentally wrong with the notion of principles opposing or conflicting with each other. That idea, of course, argues for flexibility.

⁶⁷ Starry, 2.

⁶⁸ Katz, 38.

⁶⁹ Joint Pub 3-0, A-2.

⁷⁰ Great Britain, Canada and Australia are three. In the 1950s, a Canadian officer made a compelling argument for flexibility as one of only six "true" principles, relegating the concepts of "movement" and "mobility" (the two closest to maneuver) into a category he termed "a bewildering list of other 'principles'." See: K. C. Kennedy, "The Principles of War," Canadian Army Journal (November 1951): 72. While this author agrees maneuver would more appropriately be a subset of flexibility given a shorter list of principles more "condensed" or "distilled" than the existing one, in the current framework, both principles are essential.

⁷¹ Consider the following phrases taken from the these Joint Pub 3-0 definitions of other principles: "exploit the initiative" (objective), "at the [right] place and time to achieve decisive results" (mass), "judicious employment and measured allocation" (economy of force), "staff planning and understanding [the enemy]" and "prudent risk management" (security), "speed in decisionmaking" (surprise), and "greatly facilitate[s] mission execution in the stress, fatigue and other complexities of modern combat" (simplicity). All of these can be rationally connected to the proposed doctrinal definition of flexibility. See: Joint Pub 3-0, A-1 to A-3.

⁷² Headquarters, Department of the Air Force, Air Force Basic Doctrine, Air Force Doctrine Document 1 (Maxwell AFB, AL: Headquarters Air Force Doctrine Center, September 1997), 23-24.

⁷³ Headquarters, Department of the Army, Operations, U.S. Army Field Manual 100-5 (Washington, DC: U.S. Government Printing Office, 14 June 1993), 2-7, 2-9 and 9-2.

⁷⁴ Department of the Navy, Naval Warfare, Naval Doctrine Publication 1 (Washington, DC: U.S. Government Printing Office, 1994), 8.

⁷⁵ U.S. Joint Staff, Doctrine for Logistic Support of Joint Operations, Joint Publication 4-0 (Washington, D.C.: U.S. Government Printing Office, 27 January 1995), II-1 to II-4. Additionally, Joint Pub 4-05, Joint Doctrine for Mobilization Planning, describes flexibility as one of the four Tenets of Mobilization. See: Joint Staff, Joint Doctrine for Mobilization Planning, Joint Publication 4-05 (Washington, D.C.: U.S. Government Printing Office, 22 June 1995), II-1 to II-6.

⁷⁶ Though a receptiveness to influence is, on the other hand, essential.

⁷⁷ Gregory Foster, "Research, Writing and the Mind of the Strategist," Joint Force Quarterly (Spring 1996): 112-113.

⁷⁸ Joint Pub 3-0, A-1.

⁷⁹ Williamson Murray, "The German Response to Victory in Poland," Armed Forces and Society, Vol. 7, no. 2 (n.p.: Inter-University Seminar on Armed Forces and Society, Winter 1981), 2.

⁸⁰ Hans Binnendijk, ed., Strategic Assessment 1998: Engaging Power for Peace (Washington, DC: National Defense University, Institute for National Strategic Studies, U.S. Government Printing Office, March 1998), 153.

⁸¹ David T. Twining, Beyond Multilateralism (Lanham, MD: University Press of America, 1998), ix-xii.

⁸² Specifically, these revolutions are: The Information Revolution, The Socio-Biological Revolution, The Efficiency Revolution, and The Revolution in Military Affairs. She goes on to note the "abundance of contradictions" that this age of revolutions has already produced in terms of attempting to define future warfare. See: Claudia Kennedy, The Age of Revolutions, The Letort Papers, No. 3, Monograph from the U.S. Army War College Strategic Studies Institute (Carlisle Barracks, PA: U.S. Army War College, March 1998), 1-5.

⁸³ Or, as Richard L. Kugler concludes from his 2-year RAND National Defense Research Institute (NDRI) study, it will be an increasingly dangerous world. See: Richard L. Kugler, Toward a Dangerous World--US National Security Strategy for the Coming Turbulence (Santa Monica, CA: RAND Corporation, 1995), xii-xxviii. Even the title of the U.S. Army War College Autumn 1998 Parameters article, "Radical Destabilizing Effects of New Technologies," portends an unruly future and seems to capture prevailing sentiment. See: Thomas K. Adams, "Radical

Destabilizing Effects of New Technologies," Parameters (Autumn 98): 99.

⁸⁴ Schneider and Grinter, 3.

⁸⁵ John M. Shalikashvili, Joint Vision 2010 (Washington, D.C.: U.S. Government Printing Office, 1996).

⁸⁶ Some, for example, charge that JV 2010 contributes little original thought; others suggest it goes too far in trying to "coalesce" the various Service perspectives, in essence stifling them. Some argue it focuses too heavily on technical solutions. For example, see: Frank G. Hoffman, "Innovation Can Be Messy," United States Naval Institute Proceedings (January 1998): 46-50. Many others, however, hail JV 2010 as a brilliant and forward-looking unifying document that both releases and positively channels "tremendous energy once dedicated to competing visions with little return," as stated by Major General Charles Link, USAF. See: Charles D. Link, "21st Century Armed Forces--Joint Vision 2010," Joint Force Quarterly (Autumn 1996): 69-73.

⁸⁷ Shalikashvili, 19.

⁸⁸ U.S. Joint Warfighting Center, Concept for Future Joint Operations: Expanding Joint Vision 2010 (Fort Monroe, VA: U.S. Joint Warfighting Center Publication, 22 January 1997).

⁸⁹ For an overview of such efforts, see: Benny G. Steagall, Adaptive Joint Force Packaging, Strategy Research Project (Carlisle Barracks, PA: U.S. Army War College, 7 April 1997).

⁹⁰ For an overview of the EAF concept, see: Bruce D. Callander, "The New Expeditionary Force," Air Force Magazine (September 1998): 54-56. Regarding U.S. Army emerging emphasis on tailorability and modularity, see: TRADOC Pam 525-5, 3-2.

⁹¹ This process is not without controversy. For example, see: William J. Toti, "It's Broken! Fix It!" Armed Forces Journal International (April 1996): 29-34. However, this author believes the overall JWCA design is fundamentally sound and will mature into the effective process originally envisioned. For an overview and assessment of the JWCA process by its founder, Admiral William Owens, see: William A. Owens, "Understanding the JWCA Process: Bringing A Better Joint Warfighting Perspective To Bear On Resource Allocation," Armed Forces Journal International (May 1996): 14. Also see: William A. Owens and James R. Blaker, "Overseeing Cross-Service Trade Offs," Joint Force Quarterly (Autumn 1996): 37-40.

⁹² Letter to George Bainton, October 15, 1888. See: Justin Kaplan, ed., Bartlett's Familiar Quotations, 16th Edition (Boston, MA: Little, Brown and Company, 1992), 527.

⁹³ Joint Pub 3-0, A-1 through A-3.

⁹⁴ This sentence ended, "even if only to reject them after thoughtful consideration." The SSI team was addressing two such alternatives, which they called the "maximalist" approach and the "minimalist" approach. The "maximalist" approach posits that "war has become so complex that no single set of principles can apply to all of war's variations." Conversely, the "minimalist" approach suggests that "the existing principles of war can be further distilled." See: Johnsen, et al, 35.

⁹⁵ Leonhard.

⁹⁶ Ibid, vii.

⁹⁷ A recent example is Lt Col William C. Bennett's analysis of Operation Just Cause (Panama) using the principles of war. See William C. Bennett, "Just Cause and the Principles of War," Military Review (March 1991): 2.

⁹⁸ For example, the nine principles of war are listed in the Theater Analysis and Replanning Graphic Execution Toolkit (TARGET), a computer-based JOPES planning tool used by the warfighting CINC staffs as a basis for analyzing courses of action during crisis action planning.

⁹⁹ Leonhard, vi.

BIBLIOGRAPHY

- Adams, Thomas K. "Radical Destabilizing Effects of New Technologies." Parameters (Autumn 98): 99.
- Alger, John I. The Quest for Victory: The History of the Principles of War. Westport, CT: Greenwood Press, 1982.
- The American Heritage Dictionary. Boston, MA: Houghton Mifflin Company, 1991.
- Australian Army (Doctrine Branch, Headquarters Training Command). The Fundamentals of Land Warfare. Georges Heights NSW, Australia: Ventura Publisher, 1993.
- Bennett, William C. "Just Cause and the Principles of War." Military Review (March 1991): 2-13.
- Binnendijk, Hans, ed. Strategic Assessment 1998: Engaging Power for Peace. Washington, DC: National Defense University, Institute for National Strategic Studies, U.S. Government Printing Office, March 1998.
- Boatman, John. "Spreading the Word." Janes Defence Weekly. 10 December 1994.
- British Ministry of Defence. British Defence Doctrine, Joint Warfare Publication (JWP) 0-01. London: Caldwell Prince, Ltd., 1997.
- Callander, Bruce D. "The New Expeditionary Force." Air Force Magazine (September 1998): 54-56. Clausewitz, Carl von. On War. Edited and translated by Michael Howard and Peter Paret. Princeton, NJ: Princeton University Press, 1976.
- Clausewitz, Carl von. On War. trans. and ed. Michael Howard and Peter Paret. Princeton, NJ: Princeton University Press, 1976.
- Cushman, John. "In Joint Doctrine: What are Exceptional Circumstances?" United States Naval Institute Proceedings (April 1995): 46-50.
- Department of the Army, Headquarters, U.S. Army Training and Doctrine Command. Force XXI Operations: A Concept for the Evolution of Full-Dimensional Operations for the Strategic Army of the Early Twenty-First Century. TRADOC Pam 525-5. Fort Monroe, VA: U.S. Training and Doctrine Command, 1 August 1994.
- Department of the Army, Headquarters, U.S. Army Training and Doctrine Command. Requirements Determination. TRADOC Pam

- 71-9. Fort Monroe, VA: U.S. Training and Doctrine Command, 1 August 1999.
- Department of the Navy. Naval Warfare. Naval Doctrine Publication 1. Washington, DC: U.S. Government Printing Office, 1994.
- Department of the Navy. Warfighting. U.S. Marine Corps Doctrinal Publication 1. Washington, D.C.: U.S. Government Printing Office, 1997.
- Falwell, Marshall L. "The Principles of War and the Solution of Military Problems." Military Review (May 1955) 48-62.
- Foster, Gregory. "Research, Writing and the Mind of the Strategist." Joint Force Quarterly (Spring 1996): 111-115.
- La Fontaine, Jean de. The Fables of La Fontaine, Translated by Marianne Moore. New York: Viking Press, 1954.
- Fuller, J.F.C. The Foundations of the Science of War. London: Hutchinson & Co., Ltd., 1926. Reprinted by U.S. Army Command and General Staff College Press, Fort Leavenworth, KS, 1993.
- Glenn, Russell W. "No More Principles of War?" Parameters (Spring 1998): 48-66.
- Goldwater-Nichols Act of 1986. 10 U.S. Code, sec. 153 (1998).
- Headquarters, Department of the Army. The Army. U.S. Army Field Manual 100-1. Baltimore, MD: U.S. Army Publications Center, June 1994.
- Headquarters, Department of the Army. Operations. U.S. Army Field Manual 100-5. Washington, DC: U.S. Government Printing Office, 14 June 1993.
- Headquarters, Department of the Air Force. Air Force Basic Doctrine. Air Force Doctrine Document 1. Maxwell AFB, AL: Headquarters Air Force Doctrine Center, September 1997.
- The Holy Bible (Oxford Self-Pronouncing Bible, Authorized King James Version). London: Oxford University Press, 1967.
- Hoffman, Frank G. "Innovation Can Be Messy." United States Naval Institute Proceedings (January 1998): 46-50.
- Jacobs, T. Owen. A Guide to the Strategic Leader Development Inventory (Second Revision). Carlisle Barracks, PA: U.S. Army War College, n.d.

- Johnsen, William T., Douglas V. Johnson II, James O. Kievit, Douglas C. Lovelace, Jr., and Steven Metz. The Principles of War in the 21st Century: Strategic Considerations. U.S. Army War College, Carlisle Barracks, PA: Strategic Studies Institute.
- Kaplan, Justin, ed. Bartlett's Familiar Quotations, 16th Edition. Boston, MA: Little, Brown and Company, 1992.
- Katz, Paul. "The Additional Principle of War." Military Review (June 1987): 36-45.
- Kennedy, Claudia. The Age of Revolutions. The Letort Papers, No. 3. Monograph from the U.S. Army War College Strategic Studies Institute. Carlisle Barracks, PA: U.S. Army War College, March 1998.
- Kennedy, K. C. "The Principles of War," Canadian Army Journal. November 1951.
- Kugler, Richard L. Toward a Dangerous World--US National Security Strategy for the Coming Turbulence. Santa Monica, CA: RAND Corporation, 1995.
- Link, Charles D. "21st Century Armed Forces--Joint Vision 2010." Joint Force Quarterly (Autumn 1996): 69-73.
- Lovelace, Douglas C., Jr., and Thomas-Durell Young. Strategic Plans, Joint Doctrine and Antipodean Insights. U.S. Army War College, Carlisle Barracks, PA: Strategic Studies Institute, 20 October 1995.
- Mann, Edward. "One Target, One Bomb: Is the Principle of Mass Dead?" Military Review (September 1993) 33-41.
- Mao Tse-tung. Selected Military Writings of Mao Tse-tung. trans. Foreign Languages Press. Peking: Foreign Languages Press, 1963.
- Murray, Williamson. "The German Response to Victory in Poland." Armed Forces and Society. Vol. 7, no. 2. n.p.: Inter-University Seminar on Armed Forces and Society, Winter 1981.
- National Defense University. The Joint Officers Staff Guide 1997. Armed Forces Staff College Publication 1. Washington DC: U.S. Government Printing Office, 1997.
- Rast, Stephanie A. The Tenth Principle. Study Project, Carlisle Barracks, PA: U.S. Army War College, March 1989.

- Owens, William A. "Understanding the JWCA Process: Bringing A Better Joint Warfighting Perspective To Bear On Resource Allocation." Armed Forces Journal International (May 1996): 14.
- _____, and James R. Blaker. "Overseeing Cross-Service Trade Offs." Joint Force Quarterly (Autumn 1996): 37-40.
- Redden, Joseph J. "Joint Doctrine: The Way Ahead." Joint Force Quarterly (Winter 1996-97): 10-12.
- Sawyer, David A. "The Joint Doctrine Development System." Joint Force Quarterly, (Winter 1996-97): 37.
- Schneider, Barry R., and Grinter, Lawrence E., eds. Battlefield of the Future: 21st Century Warfare Issues. Maxwell AFB, AL: Air University Press, 1998.
- Shalikashvili, John M. Joint Vision 2010. Washington, D.C.: U.S. Government Printing Office, 1996.
- Smith, William C. The United States Needs Joint Warfighting Doctrine. Study Project. Carlisle Barracks, PA: U.S. Army War College, 5 April 1988.
- Starry, Donn A. "The Principles of War." Military Review. September 1981.
- Steagall, Benny G. Adaptive Joint Force Packaging. Strategy Research Project. Carlisle Barracks, PA: U.S. Army War College, 7 April 1997.
- Sun Tzu, The Art of War. Trans. Samuel B. Griffith. London: Oxford University Press, 1963.
- Toti, William J. "It's Broken! Fix It!" Armed Forces Journal International (April 1996): 29-34.
- Twining, David T. Beyond Multilateralism. Lanham, MD: University Press of America, 1998.
- U.S. Joint Staff. Compendium of Joint Doctrine Publications. Joint Publication 1-01.1. Washington, D.C.: U.S. Government Printing Office, 25 April 1995.
- U.S. Joint Staff, Doctrine for Logistic Support of Joint Operations. Joint Publication 4-0. Washington, D.C.: U.S. Government Printing Office, 27 January 1995.

- U.S. Joint Staff. Doctrine for Joint Operations. Joint Publication 3-0. Washington, D.C.: U.S. Government Printing Office, 1 February 1995.
- U.S. Joint Staff. DoD Dictionary of Military and Associated Terms. Joint Publication 1-02, as amended through 10 February 1999. Washington, D.C.: U.S. Government Printing Office.
- U.S. Joint Staff. Joint Doctrine for Military Operations Other Than War. Joint Publication 3-07. Washington, D.C.: U.S. Government Printing Office, 16 June 1995.
- U.S. Joint Staff. Joint Doctrine for Mobilization Planning. Joint Publication 4-05. Washington, D.C.: U.S. Government Printing Office, 22 June 1995.
- U.S. Joint Staff. Joint Warfare of the Armed Forces of the United States. Joint Publication 1. Washington, D.C.: U.S. Government Printing Office, 10 January 1995.
- U.S. Joint Warfighting Center. Concept for Future Joint Operations: Expanding Joint Vision 2010. Fort Monroe, VA: U.S. Joint Warfighting Center Publication, 22 January 1997.
- Vaughn, Thomas B. "Morale: The 10th Principle of War?" Military Review (May 1983): 23-39.
- Weigley, Russell F. The American Way of War. Bloomington, IA: Indiana University Press, 1973.